Atlas of the Rare Vascular Plants of Ontario

Atlas des plantes vasculaires rares de l'Ontario

George W. Argus
David J. White
eds./réd.

National Museum of Natural Sciences
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As additional parts of the Atlas are published they may be integrated with the preceeding parts in a variety of ways. We recommend placing the families in systematic or in alphabetical order.

ATLAS OF THE RARE VASCULAR PLANTS OF ONTARIO

ATLAS DES PLANTES VASCULAIRES RARES DE L'ONTARIO

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Table of Contents

Introduction 5
- A. Definitions 5
- B. Criteria 6
- C. Format and Methods 9
  - 1. Family Title Page 9
  - 2. Species Sheets 10
  - 3. Excluded Species 11
- D. Acknowledgements 12

References Cited 15

Appendices
- I. Herbaria Consulted 19
- II. Status Sources 21
- III. Contributors 23

Rare Species

Table des matières

Introduction 5
- A. Définitions 6
- B. Critères 6
- C. Présentation et méthodes 10
  - 1. Page titre de famille 10
  - 2. Fiches des espèces 10
  - 3. Espèces exclues 12
- D. Remerciements 12

Ouvrages cités 15

Annexes
- I. Herbiers consultés 19
- II. Sources de la situation 21
- III. Collaborateurs 23

Espèces rares

Introduction

This atlas is the second phase of a continuing study of Ontario rare plants that began with the publication of *The Rare Vascular Plants of Ontario* (Argus & White 1977). The 1977 list was based largely on published and unpublished information, maps, and the opinions of our many correspondents. As we examined the status of hundreds of candidate rare plants it became evident that there was a need for up-to-date distribution maps of the Ontario flora and from this need the atlas grew.

Our main purpose is to present accurate information on the distribution of rare plants in Ontario that will help persons using rare plants in the recognition of environmentally sensitive areas and in conservation planning. Rare plants and their habitats are of great importance and we are concerned that the loss of species could result in a loss of gene resources, that may be needed in the future, and in the impoverishment of the natural history of Ontario.

In producing this atlas we are studying all of the species listed in 1977, mapping herbarium specimens by date of collection, and we are evaluating the status of other candidates that have since come to our attention. In order to make this information available as soon as possible it is being issued in fascicles that may be held in a looseleaf binder. This mode of publication has the advantage of permitting us to update maps and to add species as more information becomes known. We hope that the atlas will help in planning the re-exploration of known rare plant localities and that it will help in the recognition of unique areas that are characterized by concentrations of rare plants. The mapping of specimens by date of collection, furthermore, gives some idea of the past range of rare species and can help to detect declining populations. Our present information base only enables us to recognize rarity, but it is important to proceed beyond this point as soon as possible to the recognition of Ontario plants that may be threatened, endangered, or already extirpated.

The information on which we are basing the atlas is as complete and up-to-date as possible. As plant collectors continue to find new localities for species, however, it will be necessary to make changes in the range and status given for some species. We hope that collectors will call significant new records to our attention.

A. Definitions.

In defining the following terms we have generally followed the usage recommended by the Committee on the Status of Endangered Wildlife in Canada.

The words species and plant are used to refer to

Introduction

Le présent atlas constitue la deuxième étape de notre étude permanente des plantes rares de l'Ontario. La première en avait été la publication des *Plantes vasculaires rares de l'Ontario* (Argus & White 1977), liste établie dans une grande mesure à partir d'informations publiées ou inédites, de cartes et d'opinions de nombreux correspondants. L'examen de la situation de centaines de plantes supposées rares a mis en lumière la nécessité de dresser des cartes récentes de la répartition de la flore ontarienne; ainsi s'élabora le projet d'atlas.

Celui-ci a pour but principalement de présenter des données exactes sur la répartition des plantes rares en Ontario ce qui facilitera les travaux de ceux qui déterminent les régions écologiquement fragiles et planifient la protection de la nature d'après la rareté relative des plantes. Les plantes rares et leur habitat ont une grande importance, et la perte de certaines espèces risque de faire disparaître des ressources génétiques, dont nous pourrions avoir un jour besoin, sans compter l'appauvrissement de la flore ontarienne.

Pour cet atlas, nous révisons et cartographions, par dates de cueillette, des spécimens d'herbier représentant toutes les espèces de la liste de 1977, et nous évaluons en même temps la situation d'autres espèces venues à notre connaissance depuis. Pour accélérer la diffusion des données nouvelles, nous publions l'atlas en fascicules à réunir dans une reliure mobile. Cette présentation permet de mettre les cartes à jour et d'ajouter certaines espèces dès la parution des informations pertinentes. L'atlas permettra de planifier la réexploration de localités connues pour leurs plantes rares et de reconnaître les endroits où les plantes rares sont exceptionnellement abondantes. La cartographie des spécimens par date de cueillette donne en outre une certaine idée de l'aire passée des espèces rares et peut permettre de détecter les populations qui commence à décliner. Nos sources d'information actuelles ne nous permettent que de reconnaître la rareté, mais il importe que nous passions le plus tôt possible au stade suivant, qui consiste à reconnaître celles des plantes de l'Ontario qui sont menacées, menacées d'extinction ou déjà déracinées.

L'atlas repose sur des données aussi complètes et aussi récentes que possible. Cependant, à mesure que les cueilleurs trouvent certaines espèces dans de nouvelles localités, il faudra changer les indications relatives à leur situation et à leur répartition. Nous encourageons les cueilleurs à porter à notre attention toute nouvelle donnée à ce sujet.

any species, subspecies, variety, or geographically separate population.

A **rare species** is one that because of its biological characteristics, or because it occurs at the edge of its range, or, for some other reason, exists in low numbers or in very restricted areas in the region under consideration.

A **threatened species** is one that is likely to become endangered, in the region under consideration, unless the factors affecting its vulnerability do not become reversed.

An **endangered species** is one whose existence, in the region under consideration, is threatened with immediate elimination through all or a significant portion of the region owing to the actions of man.

An **extirpated species** is one that no longer exists in the wild in the region under consideration, but that exists elsewhere.

An **extinct species** is one that was formerly indigenous to the region under consideration, but that no longer exists anywhere.

B. Criteria.

Rarity, according to our definition, is based on geographic (restricted area) and demographic (low numbers) criteria, both of which vary continuously. The application of these criteria, therefore, is subjective even though the available information such as the species' distribution and population numbers, may be objective. The problem in applying a definition of rarity has been illustrated by Hardin *et al.* (1977) and it may be useful to repeat it here (Figure 1). This simple graph

A. Définitions

Les termes suivants sont généralement conformes à l'usage recommandé par le Comité sur le statut des espèces fauniques menacées d'extinction au Canada.

Les mots espèces et plante désignent, selon le cas, une espèce, une sous-espèce, une variété ou une population géographiquement isolées.

Une **espèce rare** n'existe qu'en très petit nombre ou dans des zones très restreintes de la région étudiée, soit par suite de ses caractéristiques biologiques, soit parce qu'il s'agit de l'extrême limite de son territoire, soit pour quelque autre raison.

Une **espèce menacée** risque de devenir une espèce en voie de disparition dans la région étudiée, à moins d'un retournement des facteurs qui lui sont contraires.

Une **espèce menacée d'extinction** est menacée d'élimination prochaine dans l'ensemble ou dans une grande partie de la région étudiée, par suite de l'activité humaine.

Une **espèce déracinée** a cessé d'exister à l'état sauvage dans la région étudiée, mais survit ailleurs.

Une **espèce éteinte** a déja été indigène de la région étudiée, mais n'existe plus nulle part.

B. Critères

Notre définition de la rareté repose sur des critères géographique (zone restreinte) et démographique (faiblesse numérique) qui fluctuent constamment. L'application de ces critères reste donc subjective,

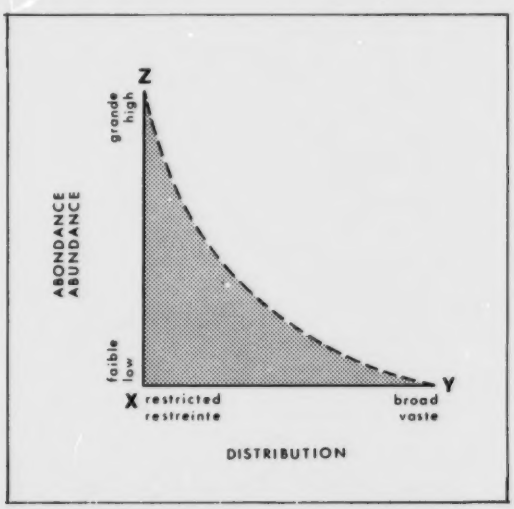
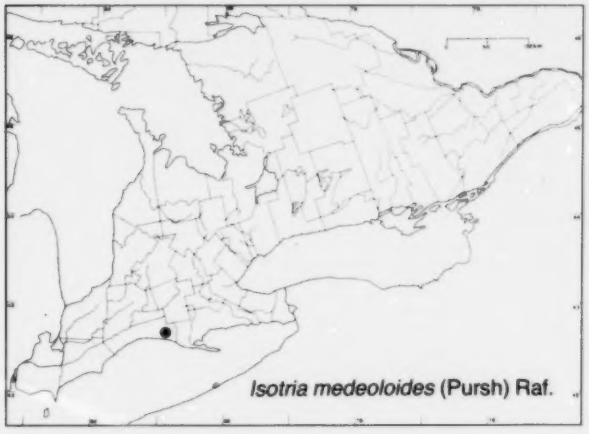


Figure 1. The relative rarity of plants as a function of distribution and abundance. Based on Hardin *et al.* (1977), with permission of the North Carolina State Museum of Natural History, Raleigh.

Figure 1. Rareté relative des plantes en fonction de leur répartition et de leur abondance. D'après Hardin *et al.* (1977), avec la permission du North Carolina State Museum of Natural History, Raleigh.

may be interpreted in the following way. A species at point X, such as *Isotria medeoloides* or *Camassia scilloides* (Figure 2), occurs in low numbers in a restricted area and poses no problem as far as applying the definition of rarity is concerned. As species fall along the axes toward points Y and Z, however, a subjective decision must be made. A species near point Y, such as *Listera borealis* or *Panax quinquefolius* (Figure 3), would be relatively widespread but would exist in relatively low numbers everywhere. A species near point Z, such as *Myrica pensylvanica* or *Aster shortii* (Figure 4), would occur in a small geographical area but would be locally common. For a species to qualify as rare it must have

bien que les données connues, comme la répartition et l'importance numérique de l'espèce, soient objectives. La difficulté d'appliquer une définition de la rareté a été montrée par Hardin *et al.* (1977), et nous croyons utile de la reprendre ici (Figure 1). Ce simple graphique peut s'interpréter de la manière suivante. Une espèce située au point X, comme *Isotria medeoloides* ou *Camassia scilloides* (Figure 2), ne se trouve qu'en petit nombre dans une zone restreinte; on peut donc sans difficulté lui appliquer le qualificatif de 'rare'. Quand les espèces se rapprochent des points Y et Z, le long des axes, il faut cependant prendre une décision subjective. Une espèce près du point Y, comme *Listeria borealis* ou *Panax*



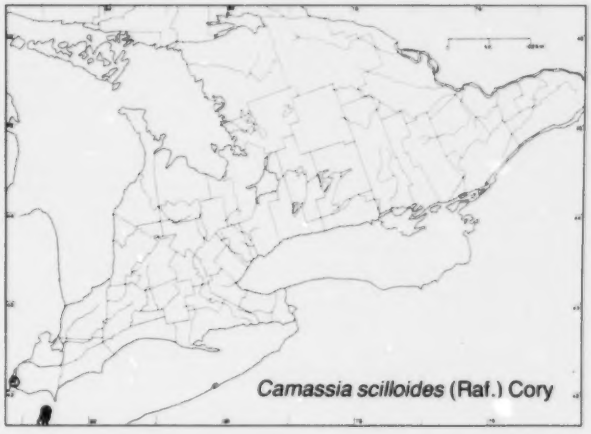
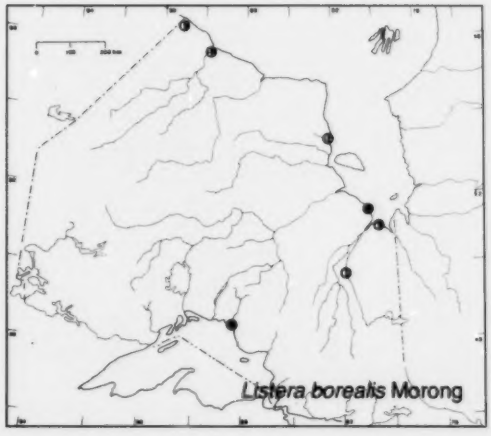


Figure 2. Rare plants that occur in low numbers in a small area.

Figure 2. Plantes rares présentes en petit nombre dans une aire restreinte.



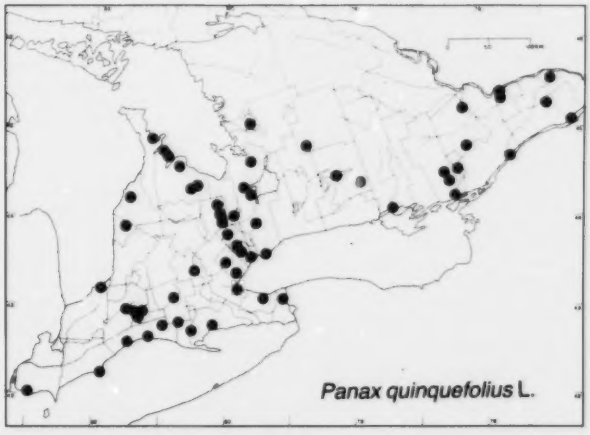


Figure 3. Rare plants that occur in low numbers over a wide area.

Figure 3. Plantes rares présentés en petit nombre dans une aire étendue.

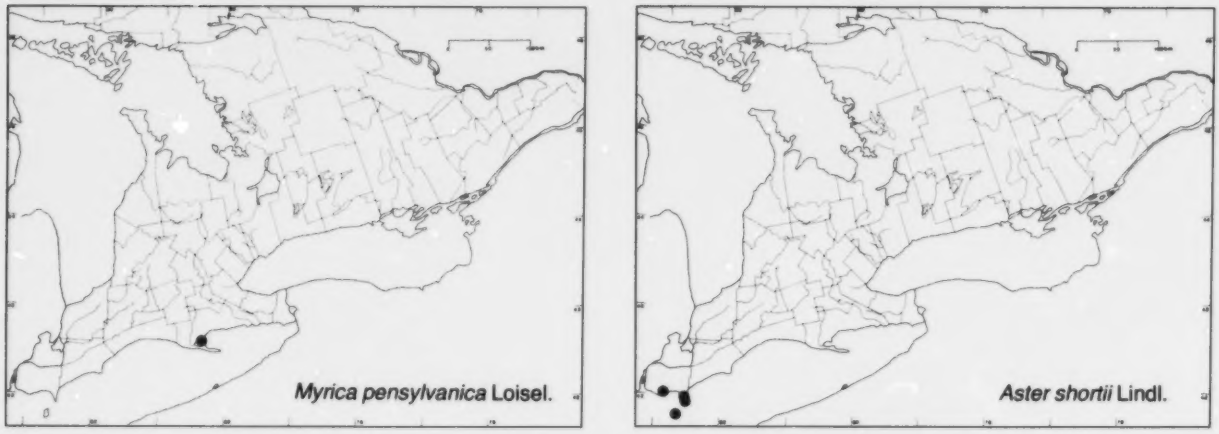


Figure 4. Rare plants that occur in a small area but which are locally common.

Figure 4. Plantes rares présentes en grand nombre dans une aire restreinte.

the correct mix of these two factors — abundance and geographical distribution. The dashed line on the graph indicates the subjective limit to our concept of rarity and any species more common or more widespread than this would not be considered rare.

The species recognized in the atlas as rare are those native Ontario plants that have a small total population. Their numbers are usually so low, or they are restricted to such small areas, that they are vulnerable to environmental changes that may be brought about or exacerbated by human cause. Our pragmatic approach to the selection of these species is first to select a geographical area that we consider to be relatively small. Examples of such areas can be seen from the maps and include the immediate coasts of Hudson or James Bays, but not both, the north shore of Lake Superior, the Bruce Peninsula and Manitoulin Island, or the southwestern tip of Ontario. Species that occur only in one of these areas, or in an area of equivalent size, are candidates for rare status. If the species is very abundant throughout one of these regions it would not qualify for rare status. For example, *Scirpus maritimus* var. *paludosus* is restricted to part of the James Bay shoreline (Figure 5), but because it is a dominant species on the tidal flats (Riley & McKay 1980) it is not given rare status. Similarly, *Sassafras albidum* occurs only in the southwestern part of Ontario (Figure 5), but it is so common in a variety of habitats, including disturbed open sites, that we do not consider it to be rare. On the other hand a species that occurs over a somewhat larger area than that described above may be treated as rare if there is evidence that it is restricted to a specialized habitat or to a habitat that is being depleted.

quinquefolius (Figure 3), se trouve en nombre relativement faible à beaucoup d'endroits. Une espèce près du point Z, comme *Myrica pennsylvanica* ou *Aster shortii* (Figure 4), ne se trouve que dans une aire restreinte, mais elle y est commune. Une espèce ne peut être dite rare que si elle comporte une combinaison suffisante des deux facteurs - nombre et répartition. La ligne brisée, sur le graphique, indique la limite subjective de notre concept de rareté: aucune espèce plus nombreuse ou plus répandue n'est considérée comme rare.

L'atlas reconnaît comme rares les espèces indigènes de l'Ontario qui n'ont qu'une faible population totale. En général, leur nombre est si peu élevé, ou leur aire de répartition si limitée, qu'elles sont vulnérables aux changements du milieu suscités ou aggravés par l'Homme. Nous avons examiné chaque cas suivant une méthode pragmatique, en déterminant d'abord les régions que nous considérons comme relativement petites; on en trouve des exemples sur les cartes, notamment la côte de la baie d'Hudson, la côte de la baie de James, la côte nord du lac Supérieur, la presqu'île de Bruce avec l'île Manitoulin, l'extrémité sud-ouest de l'Ontario, etc. Les espèces présentes dans une seule de ces régions, ou dans une aire comparable, répondent à un premier critère. Si l'espèce est très abondante dans la totalité d'une de ces régions, elle n'est pas classée comme rare. Ainsi, *Scirpus maritimus* var. *paludosus* ne se trouve que sur une partie de la côte de la baie de James (Figure 5), mais elle n'est pas considérée comme rare parce qu'elle est l'une des espèces prédominantes sur la bande intercotidale (Riley & McKay 1980). De même, *Sassafras albidum* ne se trouve qu'à l'extrémité sud-

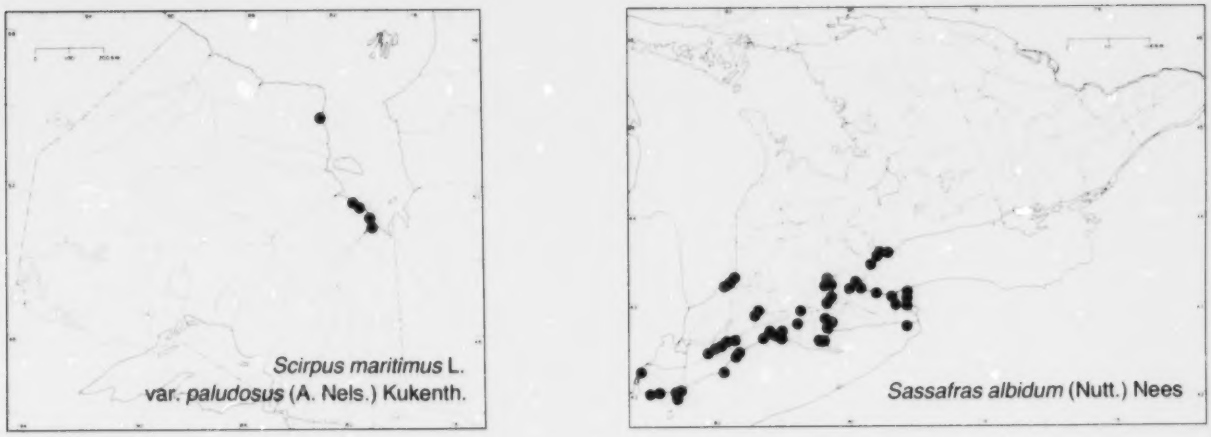


Figure 5. Plants that do not qualify for rare status because they are too common locally in relation to their range *(Scirpus maritimus* var. *paludosus)* or because they occur commonly in a variety of habitats including disturbed areas *(Sassafras albidum)*. The map of the latter species is based on Soper & Heimburger (1961).

Figure 5. Plantes qui ne peuvent pas être qualifiées de rares parce qu'elles sont trop communes à l'échelle locale par rapport à leur répartition *(Scirpus maritimus* var. *paludosus)* ou parce qu'elles sont répandues dans une gamme d'habitats, notamment des habitats modifiés par l'Homme *(Sassafras albidum)*. La carte de cette dernière espèce est inspirée de Soper & Heimburger (1961).

The age of herbarium collections is also a factor used in assigning rare status. Some species that are treated as rare, such as *Phegopteris hexagonoptera* and *Aplectrum hyemale* (Figure 6), have a relatively wide range; but because they are known mainly from old collections we infer that their populations are declining. We hope that recognizing them as rare will stimulate field studies to determine their actual present distribution and abundance.

The recognition of widespread rare species is even more difficult because it requires an intimate knowledge of the species over its entire Ontario range. Few, botanists possess such knowledge and often one must extrapolate from a few local situations. Species such as *Listera borealis* and *Panax quinquefolius* (Figure 3) seem to be rare wherever they occur even though they occur over a relatively large geographical area. Such widespread rarities are probably underrepresented in the atlas.

C. Format and Methods

The atlas is being published at irregular intervals in fascicles covering families or groups of genera. Each species sheet is complete in itself, except for the references that were used to ascertain the species' total range and status in North America.

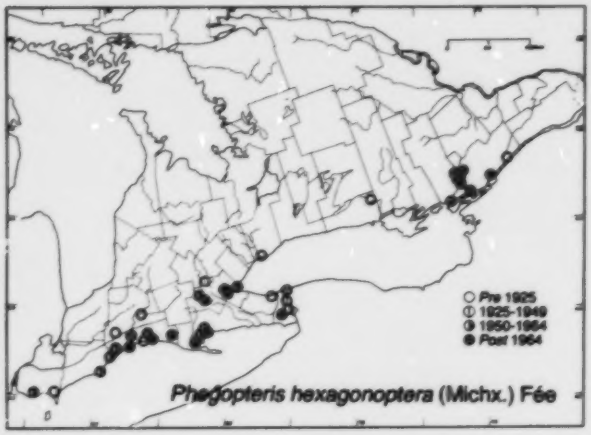
1. Family Title Page

Each fascicle of maps, usually a family or group of families, is preceded by a covering page giving the

ouest de l'Ontario (Figure 5), mais elle est si répandue dans les habitats les plus divers, notamment les lieux découverts modifiés par l'Homme, qu'elle n'est pas considérée comme rare. Par contre, une espèce présente dans une région plus vaste que les exemples susmentionnés peut être considérée comme rare s'il y a lieu de croire qu'elle n'existe que dans un habitat spécialisé ou en voie de régression.

L'ancienneté des cueillettes constitue aussi un facteur. Certaines espèces considérées comme rares, comme *Phegopteris hexagonoptera* et *Aplectrum hyemale* (Figure 6), occupent un territoire relativement vaste; mais, comme elles ne sont connues que par des spécimens assez anciens, nous présumons que leurs populations sont en régression. Ainsi reconnues comme rares, elles auront sans doute plus de chances de susciter des études sur le terrain qui en détermineront la répartition et l'abondance actuelle effective.

Il est encore plus difficile de reconnaître les espèces rares très disséminées, car cela exige une connaissance approfondie de toute l'aire de répartition de l'espèce en Ontario. Or, il n'y a guère de botaniste qui possède des informations de cette nature, et il faut tirer des conclusions à partir de quelques cas locaux. Certaines espèces comme *Listera borealis* et *Panax quinquefolius* (Figure 3) semblent rares partout où elles se rencontrent, même si elles occupent un territoire relativement vaste. Notre atlas compte probablement trop peu de ces espèces rares mais



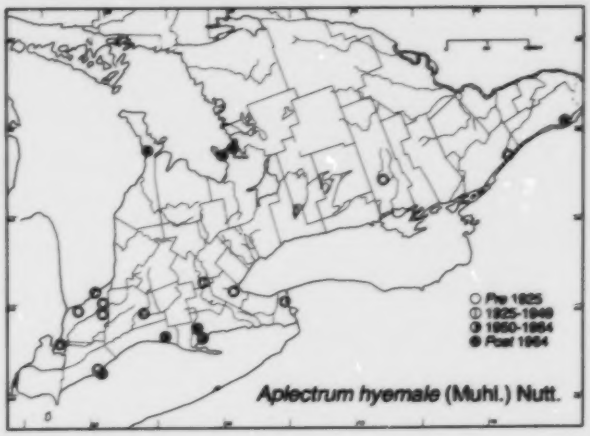


Figure 6. Rare plants known largely from old collections; this suggests that their populations are declining.

Figure 6. Plantes rares connues principalement à partir de collections anciennes; on en conclut que leur population régresse.

names of the included species and their synonyms, the names of the contributors, and the date of publication.

2. Species Sheets

Each species sheet may contain the following information:

a. Scientific name. The nomenclature that is used conforms generally to Kartesz & Kartesz (1980), but we deviate from this authority when there is good reason to do so.

b. Synonyms. Synonyms are included only if they are necessary for an understanding of the cited literature or our earlier publication (Argus & White 1977).

c. Vernacular names. Vernacular names are given whenever possible.

d. Maps. Herbarium specimens of candidate species studied from herbaria holding important collections of Ontario flora provide the basis for the Ontario distribution maps. All specimens are reidentified and, as far as possible, nomenclatural and taxonomic problems are resolved. Specimens of candidate species are requested from major herbaria (Appendix I, section A) and supplementary specimens may be seen from other herbaria (Appendix I, section B). As the study continues additional herbaria may be added to this list and it will be updated as necessary. The acronyms of the herbaria holding specimens on which each map is based are listed on the map. The absence from a map of an acronym of one of the major herbaria indicates that no specimens of that species were found in that collection at the time of the request.

For each species an appropriate set of base maps is used to show its Ontario distribution: a map of On-

disséminées.

C. Présentation et méthodes

L'atlas est publié en fascicules traitant chacun d'une famille ou d'un groupe de genres, qui paraissent à intervalles irréguliers. Chaque espèce fait l'objet d'une fiche complète et indépendante, sauf pour les mentions des sources que nous avons utilisées pour établir les cartes complètes des territoires et la situation de l'espèce en Amérique du Nord.

1. Page titre de famille

Chaque fascicule de cartes, regroupant généralement une famille ou un groupe de familles, est précédé d'une page titre portant les noms des espèces incluses et leurs synonymes, les noms des collaborateurs et la date de publication.

2. Fiches d'espèces

Chaque fiche d'espèce peut renfermer les données suivantes:

a. Nom scientifique. Nous suivons généralement la nomenclature de Kartesz & Kartesz (1980), sauf lorsque des motifs sérieux nous incitent à nous en écarter.

b. Synonymes. Nous ne mentionnons que les synonymes utilisés dans les ouvrages cités et dans notre publication antérieure (Argus & White 1977).

c. Noms vernaculaires. Nous avons fourni les noms usuels dans la mesure du possible.

d. Cartes. Les cartes sont établies à partir des spécimens d'espèces supposées rares appartenant à des herbiers riches en plantes ontariennes. Chaque spécimen a fait l'objet d'une nouvelle identification et,

tario, a map of northern Ontario, and a map of southern Ontario. The records are plotted using a distinctive symbol indicating the time period during which the collection was made, as follows: ○ prior to 1924, ◔ from 1925 to 1949, ◑ from 1950 to 1964, and ● from 1965 to the present. Only the most recent collection at each locality is mapped.

The total range maps are based mainly on the literature (cited on the map), but this information is supplemented by herbarium specimens.

e. Habitat. The brief habitat description given is based on herbarium records, published literature, and on field experience.

f. Status. The rare, threatened, endangered, extirpated, or extinct status of the species in North America is based on a variety of published and unpublished sources (Appendix II). The plant's status in Canada comes from published or manuscript lists, sometimes updated by unpublished data, and from unpublished preliminary lists (Newfoundland and New Brunswick). A plant described as 'Rare in Canada' is one that is rare in each of the provinces or territories in which it occurs.

The plant's status in the United States as a whole is based on the list published in the United States Federal Register (U.S. Fish & Wildlife Service 1980). This list supercedes the Smithsonian list (Ayensu & DeFilipps 1978) that was used in our earlier publications. For information on the plant's status in each of the states, we are using the Kartesz & Kartesz (1977) compendium of rare plants lists. Since this publication appeared, however, many new state lists have been published and for these states we are using the more recent list.

g. Notes. Comments pertinent to the rarity of the species in Ontario or to taxonomic or nomenclatural problems are given under this heading.

h. References. Bibliographic references pertaining directly to the species in Ontario or giving useful information are given in full. These references are supplementary to those in the References Cited.

3. Excluded Species

There are several categories of exclusions: (1) plants previously listed as rare in *The Rare Vascular Plants of Ontario*, but which new information suggests are not rare, (2) species that were candidates for rare status, but which were rejected, and (3) species that present taxonomic problems. The reason for exclusion is indicated by one of the following codes:

W — Widespread or common. Species that are too widely distributed or present in such large numbers that they cannot be considered to be rare.

S — Subsumed. Species treated taxonomically so as to include them in a widespread or common species.

si possible, les problèmes de nomenclature et de taxinomie sont résolus. Les spécimens de toutes les espèces prises en considération proviennent d'un groupe de grandes collections (Annexe I, section A) et les spécimens supplémentaires, d'un groupe de collections mineures (Annexe I, section B). A mesure que se poursuivra l'étude, d'autres herbiers pourront s'ajouter à cette liste, qui sera mise à jour. Le sigle de chaque herbier détenteur de spécimens ayant servi à établir une carte est inscrit sur cette carte. Les sigles des grands herbiers qui n'avaient pas de spécimens pertinents au moment de la demande ne sont pas indiqués.

Chaque espèce fait l'objet d'un jeu de cartes qui en illustrent la répartition en Ontario: une carte de l'Ontario, une du Nord ontarien et une du Sud ontarien. La cartographie des données fait appel à des symboles distinctifs qui indiquent l'époque de la cueillette: ○ avant 1924; ◔ de 1925 à 1949; ◑ de 1950 à 1964; ● depuis 1964. Seule la cueillette la plus récente est indiquée pour chaque endroit.

Les cartes complètes des territoires sont généralement établies à partir de la documentation (indiquée sur la carte), avec parfois un appoint d'information tiré des spécimens d'herbier.

e. Habitat. La brève description de l'habitat est établie à partir de données d'herbiers, de publications et d'observations sur le terrain.

f. Situation. La situation nord-américaine de chaque espèce rare, menacée, menacée d'extinction, déracinée ou éteinte est établie à partir de diverses sources publiées et inédites (Annexe II). La situation de la plante au Canada est établie à partir de listes publiées ou à paraître, en certains cas mises à jour d'après des données inédites et, dans le cas des plantes rares de Terre-Neuve et du Nouveau-Brunswick, de listes préliminaires inédites. Une plante qualifiée de 'rare au Canada' est rare dans chaque province ou territoire où elle existe.

La situation de la plante dans l'ensemble des États-Unis est établie d'après la liste publiée au Federal Register des États-Unis (US Fish & Wildlife Service 1980). Cette dernière liste succède à celle de la Smithsonian Institution (Ayensu & DeFilipps 1978) utilisée dans nos publications antérieures. Les données relatives à la situation de la plante dans chacun des États proviennent d'un recueil de listes de plantes rares (Kartesz & Kartesz 1977). Certains États ont fait l'objet d'une nouvelle liste depuis cette date; nous utilisons la plus récente.

g. Remarques. Il s'agit de commentaires relatifs à la rareté de l'espèce en Ontario ou aux problèmes de taxinomie ou de nomenclature.

h. Sources. Les sources bibliographiques portant

U — Unconfirmed. Species reported to be rare in the literature or by a correspondent that could not be substantiated by herbarium specimens.
M — Misidentified. Incorrect determination resulted in the candidacy of a species for rare status. The revised determination, if known, is given in parentheses following the original name.
T — Taxonomic Problem. Species that may be rare, but which are not mapped by us because of taxonomic problems that prevented the accurate identification of specimens. We would be grateful for the help of specialists in dealing with these refractory species.
I — Introduced. Species introduced into Ontario.

4. Author and Citation

The author's name(s) and the date of publication appear on each species sheet. These sheets may be cited as a publication as follows:

Ball, P.W., & D.J. White. 1981. *Carex conoidea* Willd. 1 page *in* G.W. Argus & D.J. White, eds. Atlas of the rare vascular plants of Ontario. National Museum of Natural Sciences, Ottawa.

Appendix III is a list of contributors and addresses. This list will be updated with each fascicle.

D. Acknowledgements

In the preparation of the atlas we have enjoyed the cooperation and advice of many Ontario botanists and other persons too numerous to mention. Some of these people are acknowledged on the family title pages, but many will remain anonymous. We are particularly grateful for the many comments that we received in response to our request for information in *The Rare Vascular Plants of Ontario* and, as far as possible, we have incorporated these comments and recommendations into the atlas. A key role in the preparation of this atlas was played by the curators of herbaria who loaned specimens for study. We are indebted to them for the time they have taken and for their unflagging efforts on behalf of the atlas project.

directement sur les espèces en Ontario sont indiquées au long. Elles suppléent aux ouvrages cités.

3. Espèces exclues

Il existe diverses catégories de plantes exclues: (1) des plantes considérées comme rares dans *Les plantes vasculaires rares de l'Ontario* mais que de nouvelles données ont fait exclure, (2) des espèces dont la candidature a été étudiée puis rejetée et (3) des espèces comportant des problèmes taxinomiques. Le motif d'exclusion est indiqué par les codes suivants:
R — Répandue. Espèce dont la répartition ou le nombre est trop considérable pour qu'on puisse en admettre la rareté.
S — Subsumé. Espèce incluse taxinomiquement dans une espèce plus répandue ou plus commune.
SI — Situation incertaine. Espèce signalée comme rare dans une publication ou par un correspondant, mais dont la rareté n'a pas pu être corroborée par des spécimens d'herbarium.
I — Identification erronée. Espèce dont la 'rareté ne résultait que d'une erreur d'identification des spécimens. La nouvelle identification, si elle est connue, est indiquée entre parenthèses après l'ancienne.
O — Obscure. Espèce qui peut fort bien être rare, mais que nous n'avons pas cartographiée par suite de problèmes taxinomiques interdisant d'identifier définitivement les spécimens. Nous saurons gré aux spécialistes qui voudront bien nous aider à trancher ces questions.
A — Allogène. Espèce allogène introduite en Ontario.

4. Auteur et citation

Le nom de l'auteur ou des auteurs et la date de publication apparaissent sur chaque fiche d'espèce. Ces fiches peuvent être citées comme publications sous la forme suivante:

Ball, P.W. & D.J. White, 1981. *Carex conoidea* Willd. 1 page *in* G.W. Argus & D.J. White, éd. Atlas des plantes vasculaires rares de l'Ontario. Musée national des sciences naturelles, Ottawa.

L'annexe III donne la liste des collaborateurs et leurs addresses. Cette liste sera mise à jour pour chaque fascicule.

D. Remerciements

Au cours de la préparation de l'atlas, nous avons bénéficié de la collaboration et des conseils de nombreux botanistes ontariens et d'autres personnes qu'il serait trop long de nommer ici. Certains de ces collaborateurs sont mentionnés aux pages titres des familles, mais la plupart resteront anonymes. Nous sommes particulièrement reconnaissant envers ceux qui nous ont fait parvenir leurs commentaires, suite à l'in-

vitation que nous lancions dans *Les plantes vasculaires rares de l'Ontario*; dans la mesure du possible, nous avons intégré ces commentaires à l'atlas et tenu compte de leurs suggestions. Les conservateurs d'herbiers qui nous ont prêté des spécimens à étudier ont contribué de façon indispensable à la réalisation de l'atlas. Nous les remercions du temps et des efforts inlassables qu'ils ont consacrés à notre entreprise.

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Appendix I / Annexe I

Herbaria Consulted

Institutional herbaria and private collections from which specimens were studied. The acronyms used are those found in Holmgren & Keuken (1974) or Woodland (1980), except for those preceded by an asterisk which were coined by us. Unless otherwise stated the herbaria are in Ontario.

A. Herbaria from which specimens were routinely requested.

*AAR	Anthony A. Reznicek, University of Michigan, Ann Arbor, Michigan.
CAN	National Herbarium / Herbier national, Ottawa.
DAO	Department of Agriculture Herbarium / Herbier du ministère de l'Agriculture, Ottawa.
HAM	Royal Botanical Garden Herbarium, Hamilton.
*JKM	John K. Morton, University of Waterloo, Waterloo.
LKHD	Claude Garton Herbarium, Lakehead University, Thunder Bay.
MICH	University of Michigan Herbarium, Ann Arbor, Michigan.
OAC	University of Guelph Herbarium, Guelph.
*PFM	Paul F. Maycock, Erindale College, Mississauga.
*PWB	Peter W. Ball, Erindale College, Mississauga.
QK	Fowler Herbarium, Queen's University, Kingston.
SLU	Laurentian University Herbarium / Herbier de l'Université Laurentienne, Sudbury.
SSMF	Great Lakes Forest Research Centre Herbarium, Sault-Ste-Marie.
TRT	University of Toronto Herbarium, Toronto.
TRTE	Erindale College Herbarium, Mississauga.
UWO	University of Western Ontario Herbarium, London.
WAT	University of Waterloo Herbarium, Waterloo.
WLU	Sir Wilfrid Laurier University Herbarium, Waterloo.

B. Herbaria from which selected specimens were seen.

APM	Algonquin Provincial Park Herbarium, Whitney.
*DFB	Daniel F. Brunton, Ottawa.
GH	Gray Herbarium, Cambridge, Massachusetts.
*JS	J. Sewell, St. Marys.
MTMG	McGill University Herbarium, Sainte-Anne-de-Bellevue, Québec.
*OPM	Ojibway Park Museum Herbarium, Windsor.
*PAK	Paul A. Keddy, University of Guelph, Guelph.
PFES	Petawawa Forest Experiment Station Herbarium, Chalk River.
*PPP	Pinery Provincial Park Herbarium, Grand Bend.
*REW	R. Emerson Whiting, Weston.
*SCMA	Simcoe County Museum and Archives, Midhurst.
*WJC	William J. Crins, Erindale College, Mississauga.
*WPP	Wheatley Provincial Park Herbarium, Wheatley.

Herbiers consultés

Herbiers d'établissements et de particuliers, dont certains spécimens ont été étudiés. Les sigles sont empruntés à Holmgren & Keuken (1974) et à Woodland (1980), sauf ceux, affectés d'un astérisque, que nous avons établis. Sauf avis contraire, ces herbiers se trouvent en Ontario.

A. Herbaria dont nous avons examiné des spécimens de chaque espèce.

*AAR	Anthony A. Reznicek, University of Michigan, Ann Arbor, Michigan.
CAN	National Herbarium / Herbier national, Ottawa.
DAO	Department of Agriculture Herbarium / Herbier du ministère de l'Agriculture, Ottawa.
HAM	Royal Botanical Garden Herbarium, Hamilton.
*JKM	John K. Morton, University of Waterloo, Waterloo.
LKHD	Claude Garton Herbarium, Lakehead University, Thunder Bay.
MICH	University of Michigan Herbarium, Ann Arbor, Michigan.
OAC	University of Guelph Herbarium, Guelph.
*PFM	Paul F. Maycock, Erindale College, Mississauga.
*PWB	Peter W. Ball, Erindale College, Mississauga.
QK	Fowler Herbarium, Queen's University, Kingston.
SLU	Laurentian University Herbarium / Herbier de l'Université Laurentienne, Sudbury.
SSMF	Great Lakes Forest Research Centre Herbarium, Sault-Ste-Marie.
TRT	University of Toronto Herbarium, Toronto.
TRTE	Erindale College Herbarium, Mississauga.
UWO	University of Western Ontario Herbarium, London.
WAT	University of Waterloo Herbarium, Waterloo.
WLU	Sir Wilfrid Laurier University Herbarium, Waterloo.

B. Herbiers dont nous avons examiné un choix de spécimens.

APM	Algonquin Provincial Park Herbarium, Whitney.
*DFB	Daniel F. Brunton, Ottawa.
GH	Gray Herbarium, Cambridge, Massachusetts.
*JS	J. Sewell, St. Marys.
MTMG	McGill University Herbarium, Sainte-Anne-de-Bellevue, Québec.
*OPM	Ojibway Park Museum Herbarium, Windsor.
*PAK	Paul A. Keddy, University of Guelph, Guelph.
PFES	Petawawa Forest Experiment Station Herbarium, Chalk River.
*PPP	Pinery Provincial Park Herbarium, Grand Bend.
*REW	R. Emerson Whiting, Weston.
*SCMA	Simcoe County Museum and Archives, Midhurst.
*WJC	William J. Crins, Erindale College, Mississauga.
*WPP	Wheatley Provincial Park Herbarium, Wheatley.

Appendix II / Annexe II

Status Sources

Sources used to prepare the section on the status of species outside of Ontario. Only sources not found in Kartesz & Kartesz (1977) are listed.

Sources de la situation

Sources des données relatives à la situation des espèces hors de l'Ontario. Seules sont énumérées ici les sources qui ne se trouvent pas dans Kartesz & Kartesz (1977).

Canada (Kershaw & Morton 1976, or the following / ou des suivants)

- **Alberta** (Argus & White 1978, Packer & Bradley 1981)
- **British Columbia / Colombie-Britannique** (R.L. Taylor, pers. comm. / comm. pers.)
- **Manitoba** (White & Johnson 1980)
- **New Brunswick / Nouveau-Brunswick** (Hinds 1981)
- **Newfoundland / Terre-Neuve** (Argus & Scott 1976)
- **Northwest Territories / Territoires du Nord-Ouest** (Cody 1979)
- **Nova Scotia / Nouvelle-Ecosse** (Maher *et al.* 1978)
- **Québec** (A. Bouchard, pers. comm. / comm. pers.)
- **Saskatchewan** (Maher *et al.* 1979)
- **Yukon** (Douglas *et al.* 1981)

United States / Etats Unis (U.S. Fish and Wildlife Service 1980)

- **Alabama** (Thomas 1976)
- **Alaska** (Murray 1980)
- **Colorado** (Weber & Johnston 1976)
- **Connecticut** (Mehrhoff 1978)
- **Florida / Floride** (Ward 1979)
- **Georgia / Géorgie** (McCollum 1976)
- **Idaho** (Henderson *et al.* 1977)
- **Kansas** (McGregor 1977)
- **Maine** (Eastman 1978)
- **Massachusetts** (Coddington & Field 1978)
- **Michigan** (Good 1980, Wagner *et al.* 1977)
- **New Jersey** (Snyder & Vivian 1981)
- **New Hampshire** (Storks & Crow 1978)
- **New York** (Mitchell *et al.* 1980)
- **North Carolina / Caroline du Nord** (Hardin *et al.* 1977)
- **Ohio** (Ohio 1981, Stuckey & Roberts 1977)
- **Oklahoma** (Zanoni *et al.* 1979)
- **Oregon / Orégon** (Siddall *et al.* 1979)
- **Pennsylvania / Pennsylvanie** (Wiegman 1979)
- **Rhode Island** (Church & Champlin 1978)
- **South Carolina / Caroline du Sud** (Rayner *et al.* 1979)
- **South Dakota / Dakota du Sud** (Schumacher 1975)
- **Tennessee** (Collins *et al.* 1976)
- **Utah** (Welsh & Thorne 1979)
- **Vermont** (Countryman 1978)
- **Virginia / Virginie** (Porter 1979)
- **Washington** (Washington Department of Natural Resources and Washington Natural Heritage Program 1980)
- **Wyoming** (Clark & Dorn 1981)

Appendix III / Annexe III

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Rare Species of Cyperaceae / Espèces rares de Cyperaceae

Bulbostylis capillaris
Carex alata
C. artitecta
C. assiniboinensis
C. atlantica ssp. *capillacea*
C. atrata = C. atratiformis ssp. atratiformis & C. raymondii
C. atratiformis ssp. *atratiformis*
C. atratiformis ssp. raymondii = C. raymondii
C. bicknellii
C. bigelowii
C. careyana
C. conoidea
C. davisii
C. flava var. lepidocarpa = C. lepidocarpa
C. folliculata
C. formosa
C. frankii
C. gracilescens
C. gravida
C. haydenii
C. heleonastes
C. hirsutella
C. howei = C. atlantica ssp. capillacea
C. hyalinolepis
C. interior var. capillacea = C. atlantica ssp. capillacea
C. jamesii
C. katahdinensis = C. conoidea
C. laxiflora var. gracilescens = C. gracilescens
C. leavenworthii
C. lepidocarpa
C. loliaceae
C. lupuliformis
C. meadii
C. muskingumensis
C. nigromarginata
C. nigromarginata var. muhlenbergii = C. artitecta
C. novae-angliae
C. oligocarpa
C. prasina
C. radiata
C. raymondii
C. rotundata
C. seorsa
C. shortiana
C. squarrosa
C. suberecta
C. supina ssp. *spaniocarpa*
C. swanii
C. tetanica
C. torta
C. trichocarpa
C. typhina
C. virescens
C. wiegandii
C. williamsii
Cyperus erythrorhizos
C. flavescens
C. houghtonii
Eleocharis caribaea
E. equisetoides
E. geniculata = E. caribaea
E. kamtschatica
E. quadrangulata
E. rostellata
Fimbristylis drummondii = F. spadicea
F. spadicea
Fuirena pumila
F. squarrosa = F. pumila
Hemicarpha micrantha
Kobresia bellardii = K. myosuroides
K. myosuroides
Scirpus clintonii
S. heterochaetus
S. juncoides var. williamsii = S. smithii
S. lacustris var. tenuiculmis = S. heterochaetus
S. micranthus = Hemicarpha micrantha
S. purshianus = S. smithii
S. smithii
S. smithii var. williamsii = S. smithii
S. verecundus
Scleria triglomerata
S. verticillata

Excluded Species of Cyperaceae / Espèces de Cyperaceae exclues

W/R — widespread or common/répandue. S/S — subsumed/subsumé. U/SI — unconfirmed/situation incertaine. M/I — misidentified/identification erronée. T/O — taxonomic problem/obscure. I/A — introduced/allogéne.

W/R *Carex amblyorhyncha* Krecz. = *C. marina*
W/R *C. amphibola* Steud. var. *turgida* Fern. = *C. grisea*
S/S *C. annectens* Bickn. = *C. vulpinoidea* Michx.
U/SI *C. atlantica* Bailey ssp. *atlantica*
U/SI *C. atlantica* var. *incomperta* (Bickn.) Herman = *C. atlantica* ssp. *atlantica*
W/R *C. atrofusca* Schkuhr
M/I *C. baileyi* Britt.
W/R *C. bicolor* Bellardi ex All.
W/R *C. capitata* L.
M/I *C. demissa* Hornem.
M/I *C. flaccosperma* Dew.
M/I *C. flava* L. var. *gaspensis* Fern.
W/R *C. glacialis* Mackenzie
W/R *C. grisea* Wahlenb.
I/A *C. hookerana* Dew.
W/R *C. laevivaginata* (Kukenth.) Mackenzie
M/I *C. langeana* Fern.
W/R *C. laxiculmis* Schwein.
M/I *C. longii* Mackenzie
W/R *C. marina* Dew.
W/R *C. maritima* Gunn.
W/R *C. microglochin* Wahlenb.
W/R *C. molesta* Mackenzie
M/I *C. nigra* (L.) Reichard (*C. aquatilis* Wahlenb.)
W/R *C. paleacea* Wahlenb.
S/S *C. physocarpa* Presl. = *C. saxatilis* ssp. *saxatilis*
M/I *C. retroflexa* Willd.
W/R *C. richardsonii* R. Br.
M/I *C. rossii* Boott ex Hook. (*C. umbellata* Schkuhr ex Willd.)
W/R *C. salina* Wahlenb.
M/I *C. saxatilis* L. var. *miliaris* (Michx.) Bailey (*C. saxatilis* ssp. *saxatilis*)
W/R *C. saxatilis* L. ssp. *saxatilis*
W/R *C. schweinitzii* Dew. ex Schwein.
W/R *C. tetanica* Schkuhr var. *woodii* (Dew.) Wood = *C. woodii*
M/I *C. willdenowii* Schkuhr (*C. jamesii* Schwein.)
W/R *C. woodii* Dew.
W/R *Cyperus engelmannii* Steud.
W/R *C. ferruginescens* Boeckl. = *C. odoratus* var. *odoratus*
W/R *C. filiculmis* Vahl
W/R *C. odoratus* L. var. *odoratus*
S/S *Eleocharis halophila* Fern. & Brack. = *E. uniglumis* (Link) Schultes
W/R *E. intermedia* Schultes
W/R *E. olivacea* Torr.
U/SI *E. parvula* (R. & S) Link ex Buff. & Fingerh.
W/R *E. quinqueflora* (Hartm.) Schwarz
W/R *Fimbristylis autumnalis* (L.) R. & S.
U/SI *F. caroliniana* (Lam.) Fern.
U/SI *F. puberula* (Michx.) Vahl = *F. caroliniana*
W/R *Kobresia simpliciuscula* (Wahlenb.) Mackenzie
W/R *Rhynchospora capitellata* (Michx.) Vahl
W/R *Scirpus maritimus* L. var. *paludosus* (A. Nels.) Kukenth.
W/R *S. paludosus* A. Nels. = *S. maritimus* var. *paludosus*
W/R *S. rufus* (Huds.) Schrad. var. *neogaeus* Fern.
W/R *S. torreyi* Olney

Acknowledgements / Remerciements

We appreciate the help of W.J. Crins, Erindale Campus, University of Toronto, Mississauga, and J.L. Riley, University of Toronto, Toronto.

Nous tenons à remercier MM. W.J. Crins, Erindale Campus, University of Toronto, Mississauga, et J.L. Riley, University of Toronto, Toronto pour l'aide qu'ils nous ont fournie.

Contributors / Collaborateurs

Peter W. Ball, David J. White, Paul M. Catling, Anthony A. Reznicek, & Bernard Boivin.

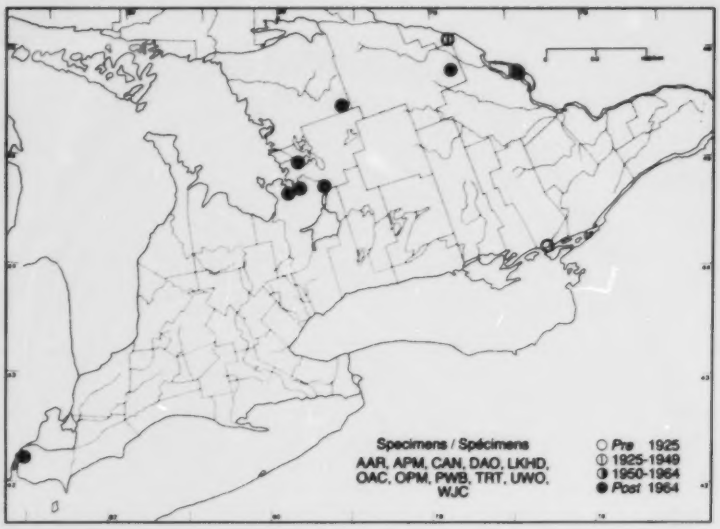
National Museums of Natural Sciences / Musée national des sciences naturelles

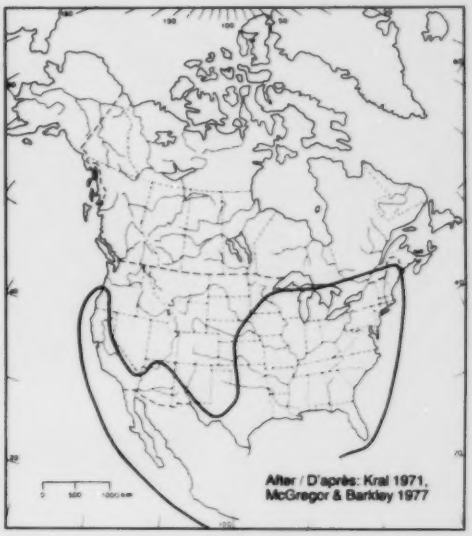
1982

CYPERACEAE

***Bulbostylis capillaris* (L.) C.B. Clarke**

Bulbostylis
Bulbostyle capillaire





HABITAT: Usually on lake shores or river margins in moist sand or gravel, or in cracks in rocks.

NOTES: Possibly introduced at some southern Ontario localities.

HABITAT: En général, gravier ou sable humides ou fissures rocheuses au bord des lacs et des cours d'eau.

REMARQUES: Peut-être introduite dans certaines localités méridionales de l'Ontario.

REFERENCES/SOURCES

Kral, R. 1971. A treatment of *Abilgaardia, Bulbostylis* and *Fimbristylis* (Cyperaceae) for North America. Sida 4:57-227.

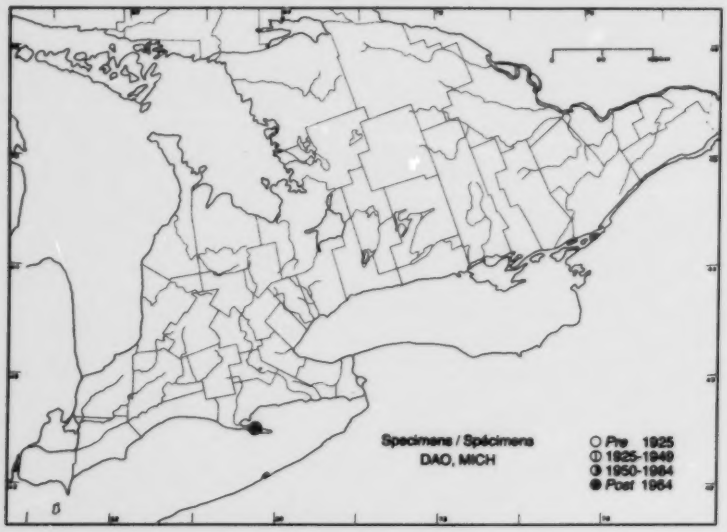
P.W. Ball & D.J. White

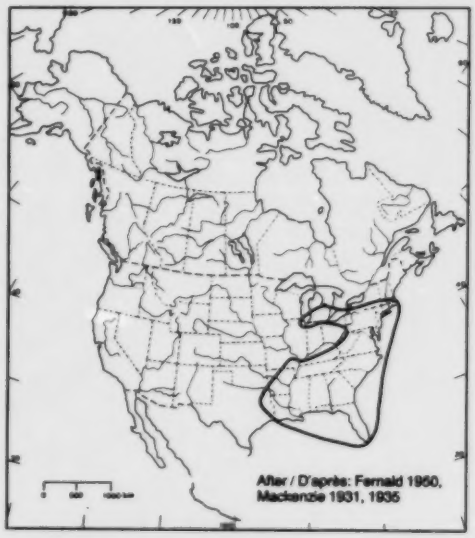
1982

CYPERACEAE

***Carex alata* T. & G.**

Broad-winged sedge
Carex





HABITAT: Swampy deciduous woods.

STATUS: Rare in Canada. Possibly extirpated in Texas; endangered in Ohio; threatened in Indiana; rare in Connecticut and Illinois.

HABITAT: Forêts de feuillus marécageuses.

SITUATION: Rare au Canada. Peut-être déracinée du Texas; menacée d'extinction en Ohio; menacée en Indiana; rare au Connecticut et en Illinois.

REFERENCES/SOURCES

Reznicek, A.A., & P.M. Catling. 1981. Cyperaceae new to Canada from Long Point, Norfolk County, Ontario. Canadian Field-Naturalist. Submitted/Soumis.

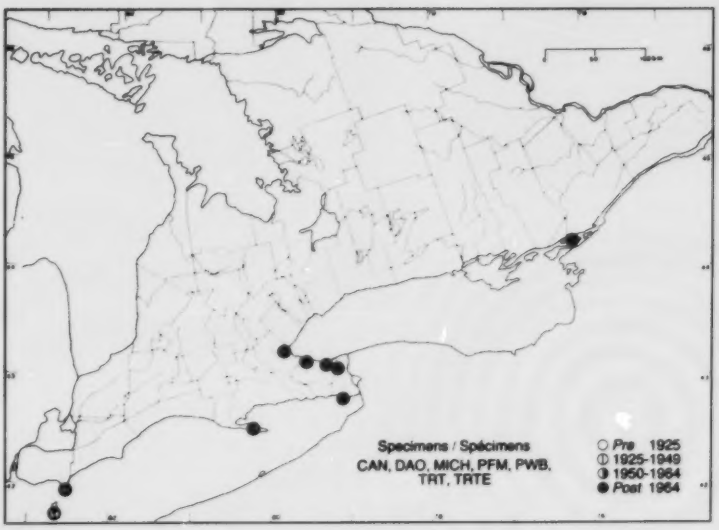
A.A. Reznicek, P.M. Catling, P.W. Ball, & D.J. White

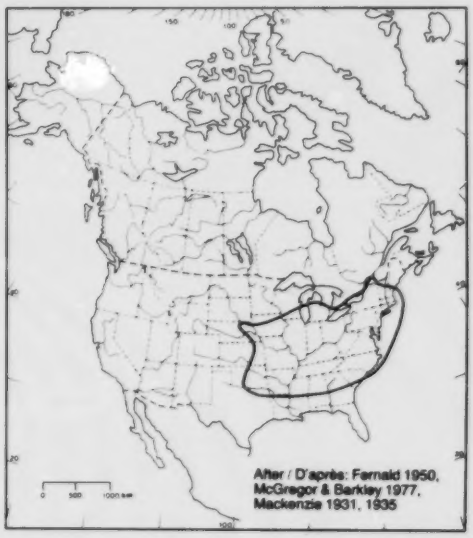
1982

CYPERACEAE

***Carex artitecta* Mackenzie**

Sedge
Carex





HABITAT: Open, dry deciduous woods and stabilized dunes.

STATUS: Endangered in Wisconsin and rare in Vermont.

NOTES: Possibly more overlooked than rare.

HABITAT: Forêts de feuillus sèches et découvertes et dunes stabilisées.

STATUS: Menacée d'extinction au Wisconsin et rare au Vermont.

REMARQUES: Possiblement passé plus fréquement inaperçue que rare.

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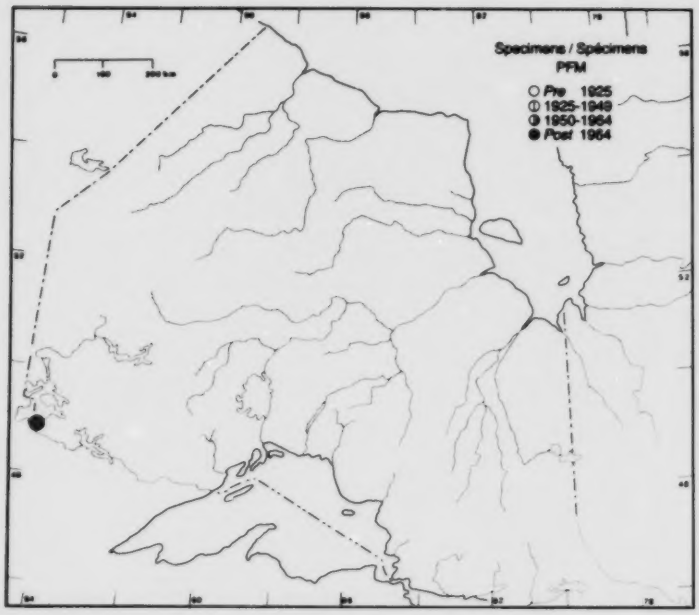
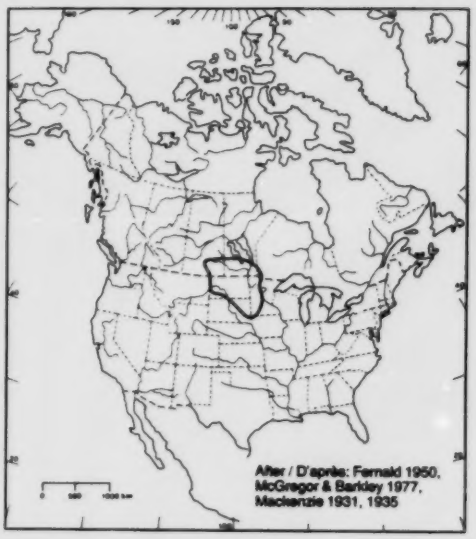
1982

CYPERACEAE

***Carex assiniboinensis* W. Boott**

Assiniboia sedge
Carex





HABITAT: Wet mesic forests.

STATUS: Rare in Saskatchewan. Threatened in Wisconsin and rare in South Dakota.

NOTES: This species is listed tentatively because the specimen is vegetative and cannot be positively determined.

HABITAT: Forêts humides mésiques.

SITUATION: Rare en Saskatchewan. Menacée au Wisconsin et rare dans le Dakota du Sud.

REMARQUES: Cette espèce figure provisoirement sur la liste, car elle est végétative et ne peut être déterminée de façon certaine.

REFERENCES/SOURCES

Bernard, J.P. 1959. Le *Carex assiniboinensis* et sa forme stolonifère. Naturaliste canadien 86:11-19.

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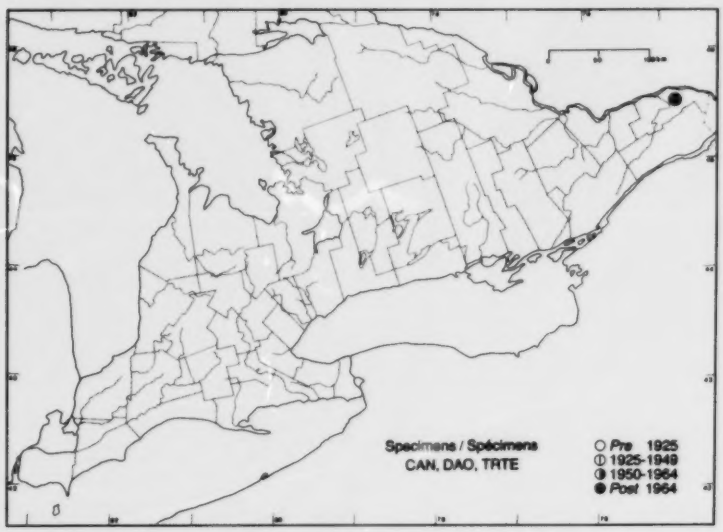
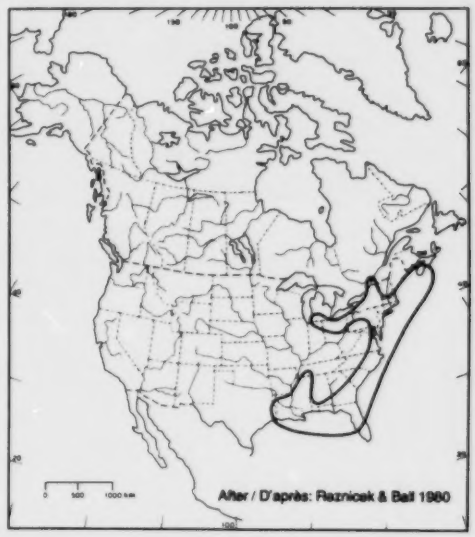
1982

CYPERACEAE

***Carex atlantica* Bailey ssp. *capillacea* (Bailey) Reznicek** — **Sedge**
(*C. howei* Mackenzie, *C. interior* Bailey var. *capillacea* Bailey) — **Carex**





HABITAT: Clearings in shrubby bogs.

STATUS: Rare in Quebec. Endangered in Indiana and Ohio; rare in Michigan, Tennessee, and Vermont.

NOTES: First discovered in Ontario in 1981.

HABITAT: Clairières dans les marécages arbustifs.

SITUATION: Rare au Québec. Menacée d'extinction en Indiana et en Ohio; rare au Michigan, au Tennessee et au Vermont.

REMARQUES: Découverte pour la première fois en Ontario en 1981.

REFERENCES/SOURCES

Reznicek, A.A., & P.W. Ball. 1980. The taxonomy of *Carex* section Stellulatae in North America north of Mexico. Contributions from the University of Michigan Herbarium 14:153-203.

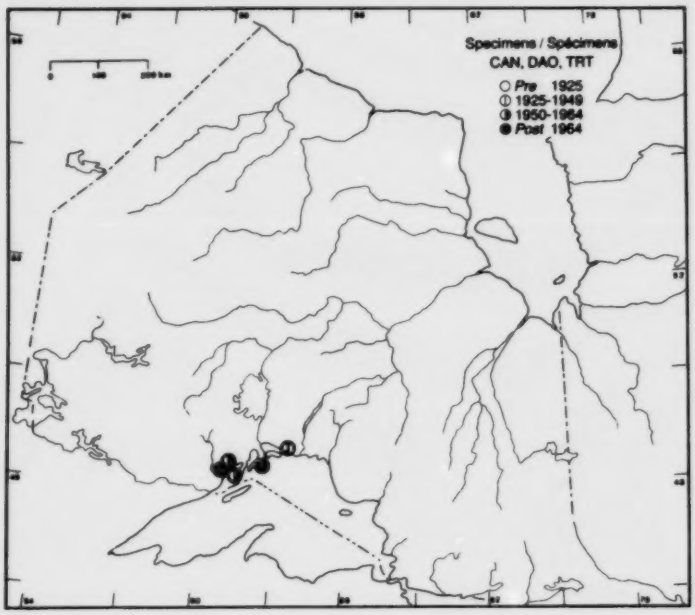
P.W. Ball, P.M. Catling, & D.J. White

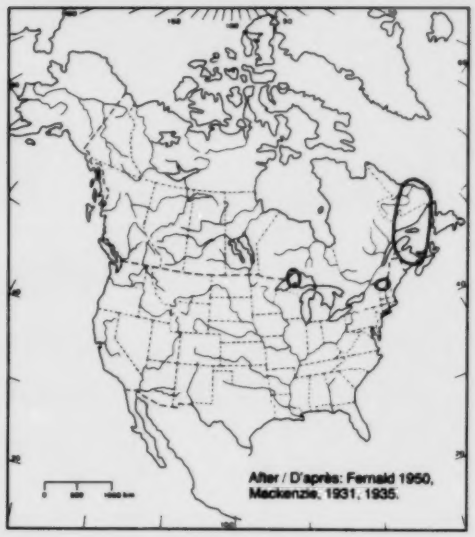
1982

CYPERACEAE

Carex atratiformis* Britt. ssp. *atratiformis
(*C. atrata* L. p.p.)

Black sedge
Carex atratiforme





HABITAT: Rocky shores, wet rocks, and cliffs.

STATUS: Rare in New Brunswick, Nova Scotia, and Quebec. Possibly extirpated in Vermont; threatened in Michigan; rare in New Hampshire.

NOTES: Treated in Argus & White (1977) as *C. atrata* L. which included *C. raymondii Calder*. The latter is listed separately in the Atlas.

HABITAT: Rivages rocailleux, roches et falaises humides.

SITUATION: Rare au Nouveau-Brunswick, en Nouvelle-Ecosse et au Québec. Peut-être déracinée du Vermont; menacée au Michigan; rare au New Hampshire.

REMARQUES: Le Argus & White (1977) lui a donné le nom de C. atrata L., qui comprend l'espèce C. raymondii Calder. Cette dernière figure séparément sur la liste de l'Atlas.

REFERENCES/SOURCES

Calder, J.A. 1952. Notes on the genus *Carex*. 1. A new species of *Carex* from western Canada. Rhodora 54:246-250.

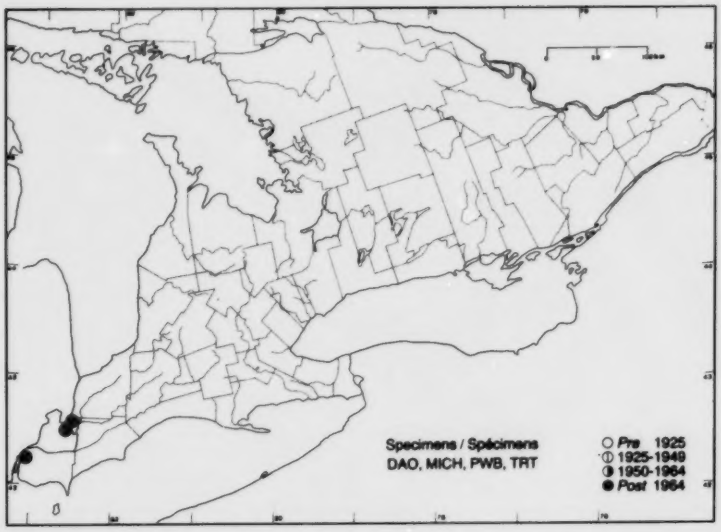
P.W. Ball & D.J. White

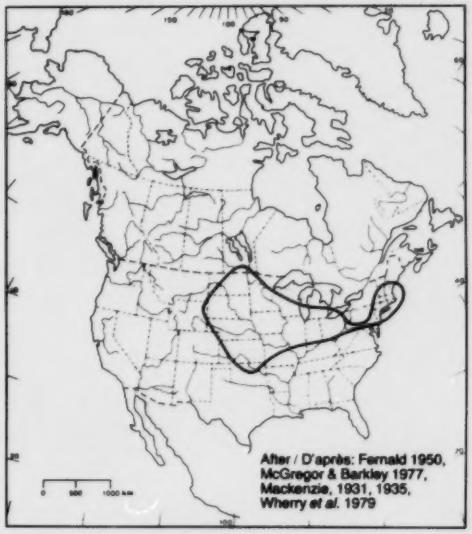
1982

CYPERACEAE

***Carex bicknellii* Britt.**

Bicknell's sedge
Carex de Bicknell





HABITAT: Open prairie and open oak woods, usually dry.

STATUS: Rare in Pennsylvania, South Dakota, and Vermont.

HABITAT: Prairies découvertes et forêts de chênes clairsemées, généralement xériques.

SITUATION: Rare en Pennsylvanie, au Dakota du Sud et au Vermont.

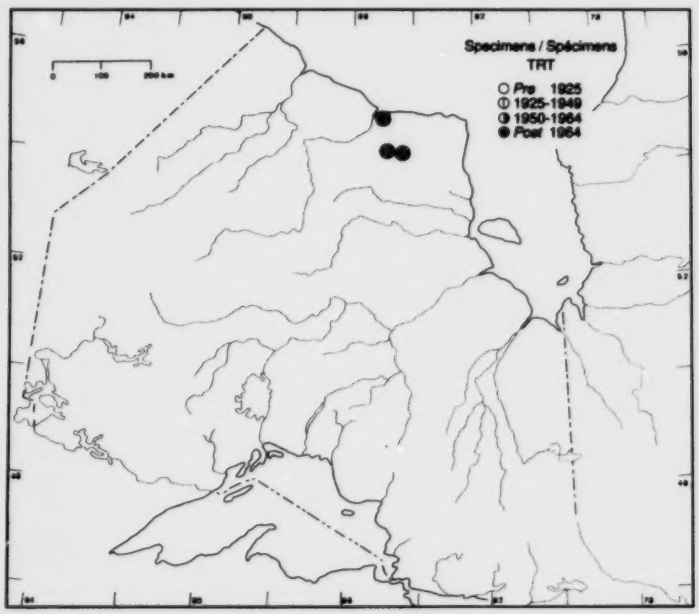
P.W. Ball & D.J. White

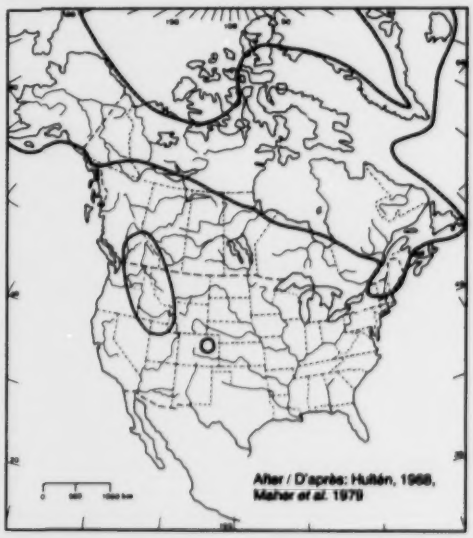
1982

CYPERACEAE

***Carex bigelowii* Torr.**

Bigelow's sedge
Carex de Bigelow





HABITAT: Summit rocks and cliff faces.

STATUS: Rare in New Brunswick, Saskatchewan, New Hampshire, New York, Vermont, and Wyoming.

NOTES: Not easily distinguishable from *C. aquatilis* Wahlenb. var. *stans* (Drej.) Boott.

HABITAT: Rochers des sommets et surface de falaises.

SITUATION: Rare au Nouveau-Brunswick, en Saskatchewan, au New Hampshire, dans l'Etat de New York, au Vermont et dans le Wyoming.

REMARQUES: Difficile à distinguer du *C. aquatilis* Wahlenb. var. *stans* (Drej.) Boott.

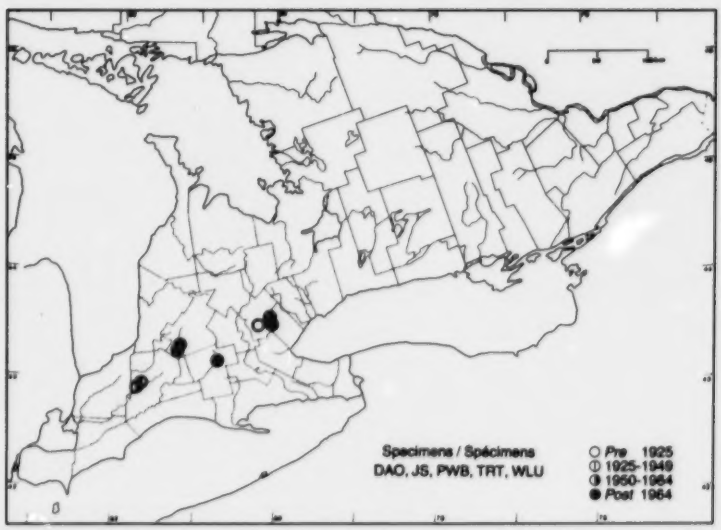
P.W. Ball & D.J. White

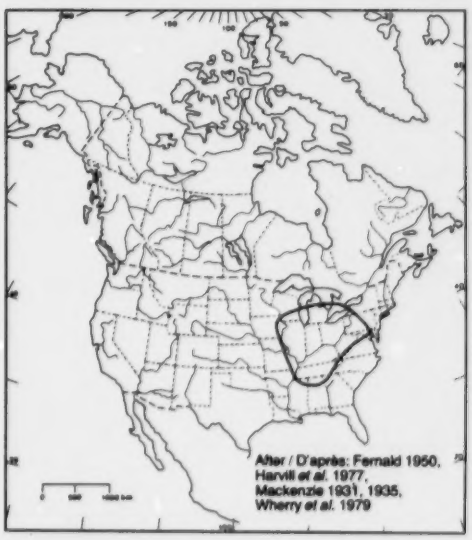
1982

CYPERACEAE

***Carex careyana* Torr.**

Carey's sedge
Carex de Carey





HABITAT: Mesic to dry-mesic hardwood forests.

STATUS: Rare in Canada. Endangered in Wisconsin; rare in Iowa and Virginia.

HABITAT: Forêts de bois dur mésoïques et mésoxériques.

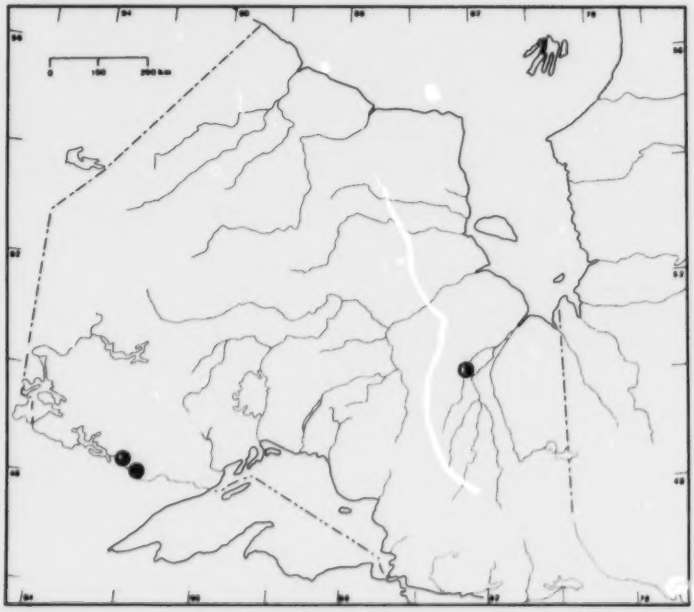
SITUATION: Rare au Canada. Menacée d'extinction au Wisconsin; rare en Iowa et en Virginie.

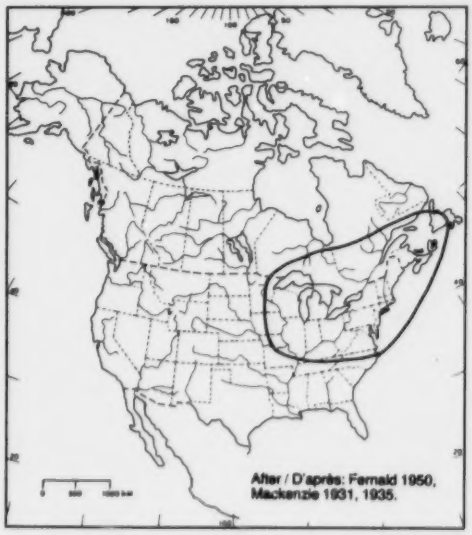
P.W. Ball & D.J. White

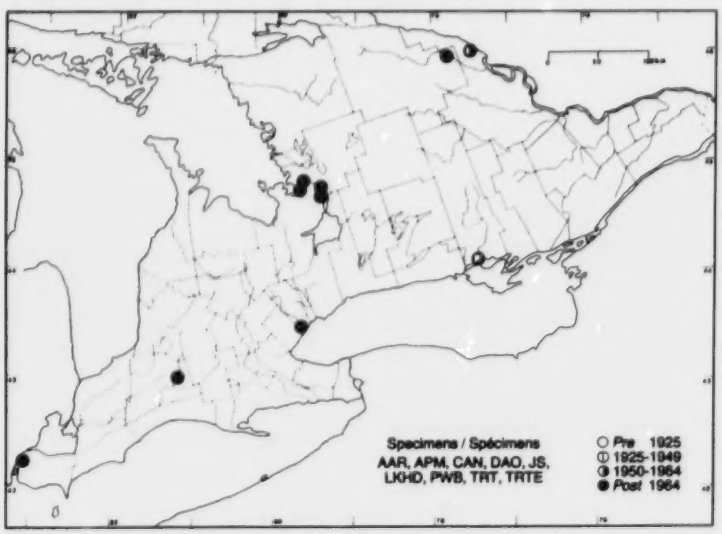
1982

***Carex conoidea* Willd.**
(*C. katahdinensis* Fern.)

Field sedge
Carex







HABITAT: Rock crevices, sand, and gravel along lake and river shores in the north; sandy grassland habitats associated with prairie species in the south.

STATUS: Rare in New Brunswick. Endangered in Missouri and North Carolina; threatened in Indiana and Ohio; rare in Iowa.

NOTES: The northern populations consist of dwarf individuals with a crowded inflorescence while the southern populations consist of tall individuals with a lax inflorescence.

HABITAT: Fissures dans les rochers, sable et gravier le long des lacs et des rivières dans le Nord; habitats herbeux et sablonneux pour les espèces des prairies dans le Sud.

SITUATION: Rare au Nouveau-Brunswick; menacée d'extinction au Missouri et en Caroline du Nord; menacée en Indiana et en Ohio; rare en Iowa.

REMARQUES: Dans le Nord, les plantes sont naines avec une inflorescence fournie, alors que dans le Sud, elles sont de grande taille avec une inflorescence relâchée.

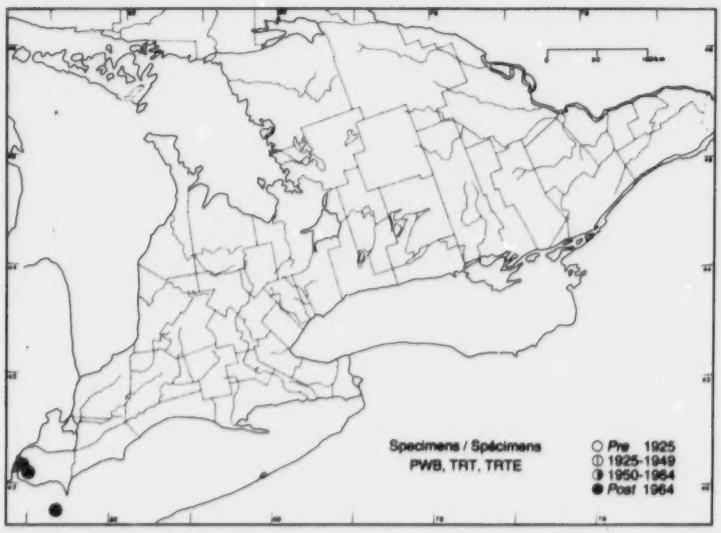
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex davisii* Schwein. & Torr.**

Davis' sedge
Carex de Davis



HABITAT: Wet-mesic hardwood forests and margins.

STATUS Rare in Canada. Possibly extirpated in Massachusetts; rare in Connecticut, Michigan, Minnesota, Tennessee, and Vermont.

HABITAT: Forêts et lisières de bois dur mésohygriques.

SITUATION: Rare au Canada. Peut-être déracinée au Massachusetts; rare au Connecticut, au Michigan, au Minnesota, au Tennessee et au Vermont.

REFERENCES/SOURCES

Campbell, C.A., & A.A. Reznicek. 1977. New vascular plant records on Pelee and East Sister Islands, Essex County, Ontario. Canadian Field-Naturalist 92:384-390.

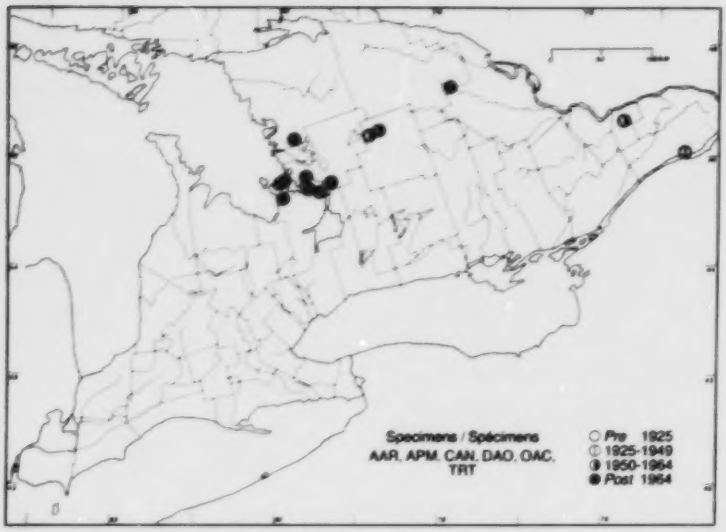
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex folliculata* L.**

Long sedge
Carex folliculé



HABITAT: Bogs, wet shorelines, and cedar swamps.

STATUS: Rare in New Brunswick and Quebec. Endangered in Indiana and South Carolina; threatened in Ohio and Wisconsin.

NOTES: Occurs at widely separated localities in Ontario. The gaps appear to be real because it is a conspicuous plant that is not easily overlooked.

HABITAT: Marais, rivages humides et marécages de cèdre.

SITUATION: Rare au Nouveau-Brunswick et au Québec. Menacée d'extinction en Indiana et en Caroline du Sud; menacée en Ohio et au Wisconsin.

REMARQUES: On la retrouve en Ontario à des endroits très éloignés les uns des autres. Cela est très significatif, car il s'agit d'une plante très voyante et facile à reconnaître.

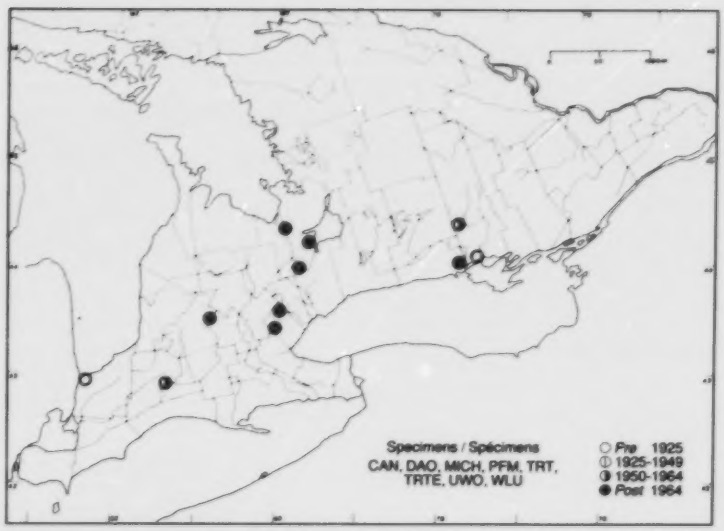
P.W. Ball & D.J. White

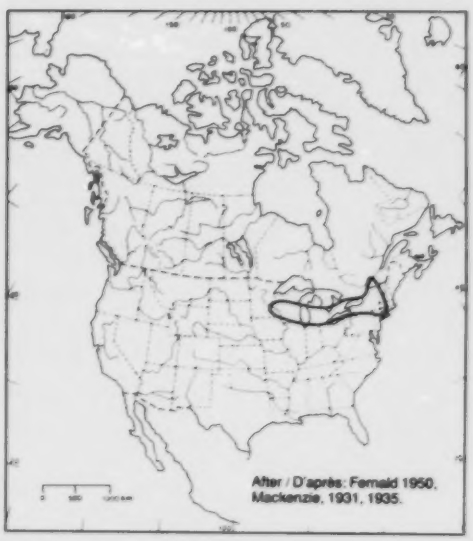
1982

CYPERACEAE

***Carex formosa* Dew.**

Handsome sedge
Carex joli





HABITAT: Forests.

STATUS: Rare in Canada. Endangered in Ohio and Wisconsin; rare in Connecticut, Massachusetts, and Minnesota.

NOTES: Rather widespread in Ontario, however, it is rare throughout much of its limited total range.

HABITAT: Forêts.

SITUATION: Rare au Canada. Menacée d'extinction en Ohio et au Wisconsin; rare au Connecticut, au Massachusetts et au Minnesota.

REMARQUES: Assez répandue en Ontario, cependant plutôt rare dans les zones où elle apparaît.

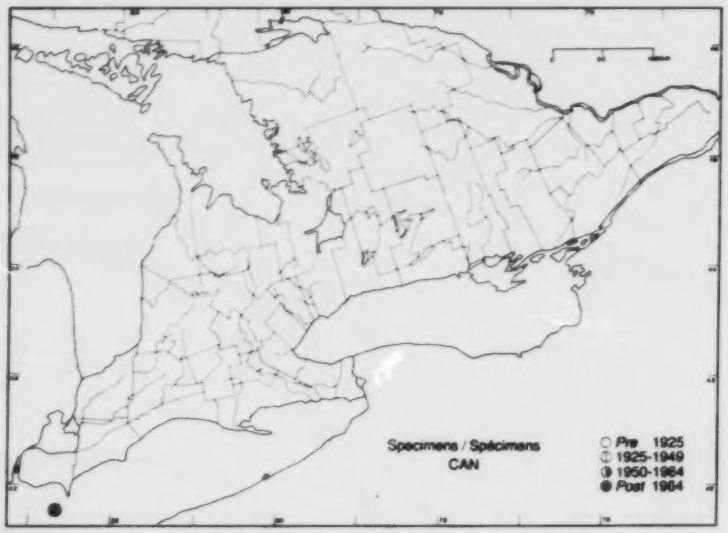
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex frankii* Kunth**

Frank's sedge
Carex de Frank



HABITAT: Moist habitats.

STATUS: Rare in Canada, Michigan, and New York.

HABITAT: Milieux humides.

SITUATION: Rare au Canada, au Michigan et dans l'Etat de New York.

REFERENCES/SOURCES

Hermann, F.J. 1974. Manual of the genus *Carex* in Mexico and Central America. United States Department of Agriculture, Agriculture Handbook No. 467. 219 pp.

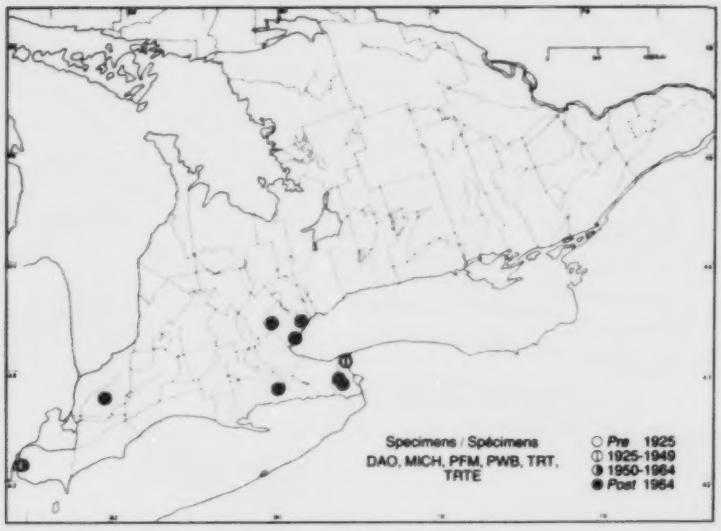
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex gracilescens* Steud.**

Slender sedge
Carex grêle



HABITAT: Wet-mesic hardwood forests.

STATUS: Rare in Canada. Possibly extirpated in Texas; threatened in Wisconsin; rare in New Hampshire, Tennessee, and Vermont.

NOTES: May be overlooked because of its similarity to the widespread *C. blanda* Dew., a species of usually drier habitats.

HABITAT: Forêts de bois durs mésohygriques.

SITUATION: Rare du Canada. Peut-être déracinée du Texas; menacée au Wisconsin; rare au New Hampshire, au Tennessee et au Vermont.

REMARQUES: Passe parfois inaperçue à cause de sa ressemblance avec une espèce répandue dans des habitats généralement plus secs, *C. blanda* Dew.

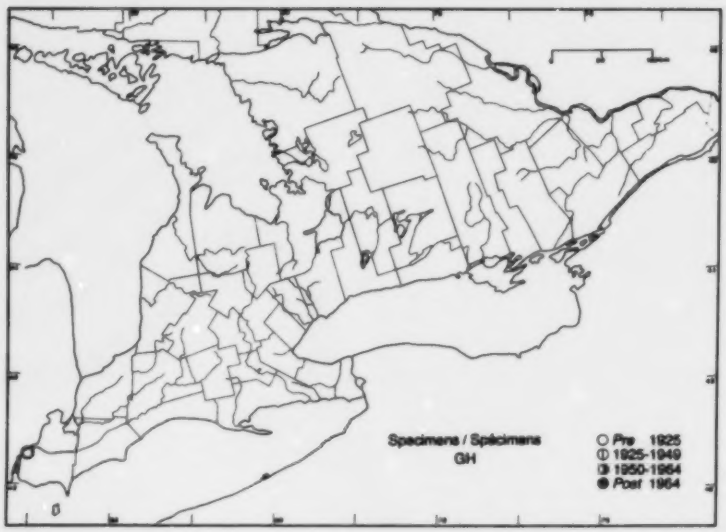
P.W. Ball & D.J. White

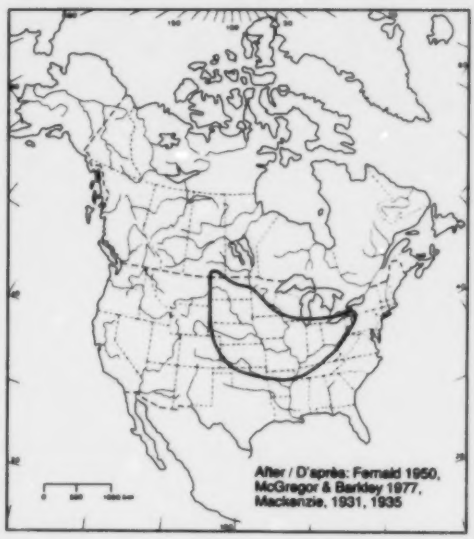
1982

CYPERACEAE

***Carex gravida* Bailey**

Heavy sedge
Carex





HABITAT: Dry open ground.

STATUS: Rare in Canada. Threatened in Ohio; rare in Colorado, Indiana, Michigan, New York, and Tennessee.

HABITAT: Sol ouvert sec.

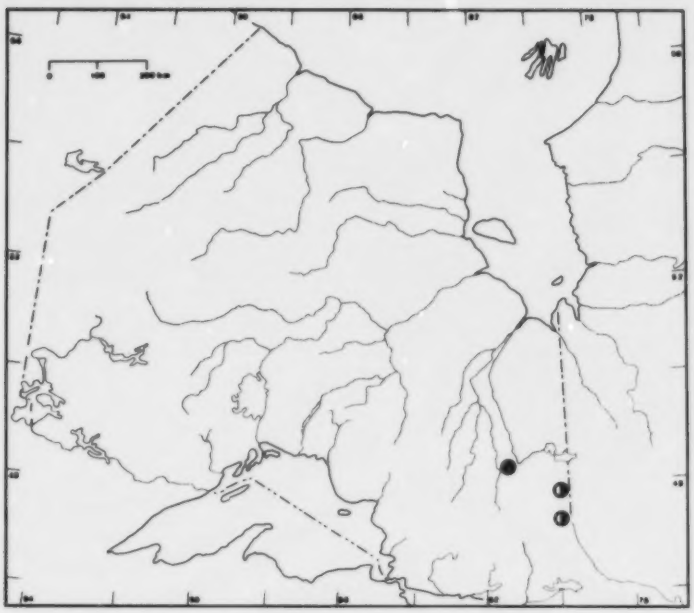
SITUATION: Rare au Canada. Menacée d'extinction en Ohio; rare au Colorado, en Indiana, au Michigan, dans l'Etat de New York et au Tennessee.

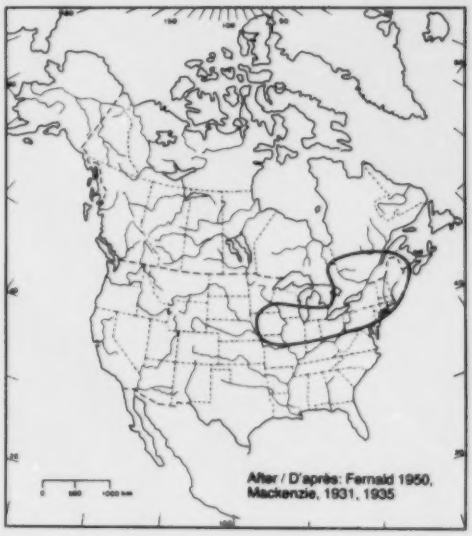
P.W. Ball & D.J. White

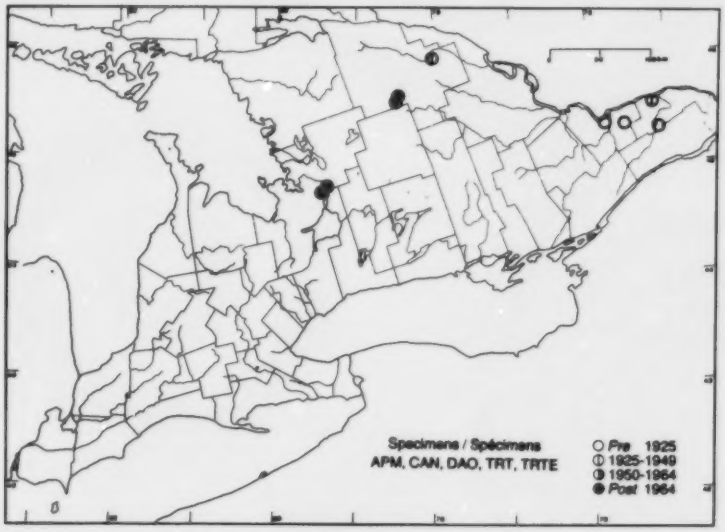
1982

***Carex haydenii* Dew.**

Hayden's sedge
Carex de Hayden







HABITAT: Open and shaded wet habitats.

STATUS: Rare in New Brunswick and endangered in Ohio.

NOTES: Widespread but rare throughout most of its range and possibly extirpated at many of the southeastern Ontario localities. It may be overlooked, however, because of its similarity to the common and widespread sedges *C. aquatilis* Wahlenb. and *C. stricta* Lam.

HABITAT: Habitats humides, et ombreux.

SITUATION: Rare au Nouveau-Brunswick et menacée d'extinction en Ohio.

REMARQUES: Répandue mais rare dans la plupart des zones où elle pousse et peut-être disparue dans les nombreuses localités du sud-est de l'Ontario. Elle est difficile à reconnaître, cependant, en raison de sa similitude avec la *C. aquatilis* Wahlenb. et la *C. stricta* Lam., espèces communes et répandues.

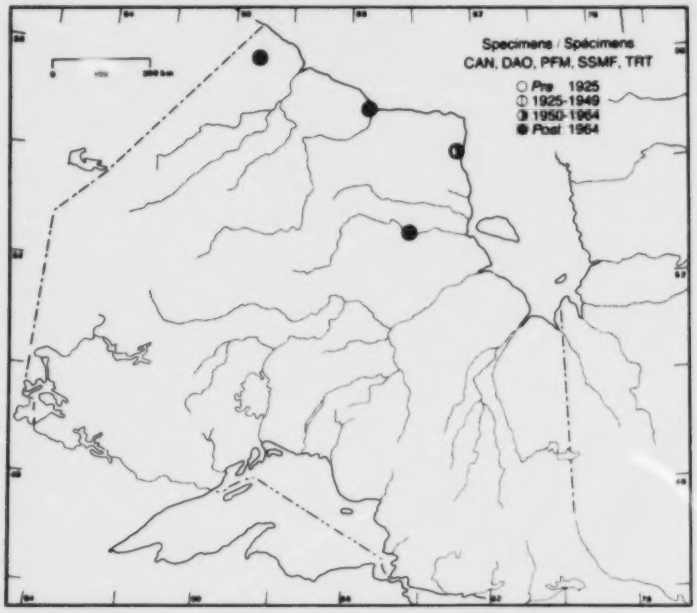
P.W. Ball & D.J. White

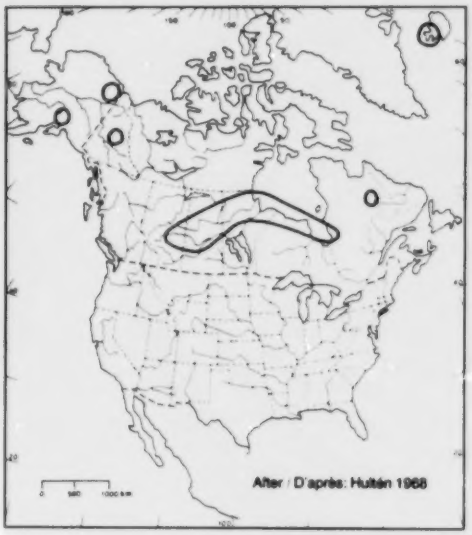
1982

CYPERACEAE

***Carex heleonastes* Ehrh. ex L.f.**

Hudson Bay sedge
Carex





HABITAT: Fens.

STATUS: Rare in Manitoba, Quebec, and the Yukon.

HABITAT: Marécages.

SITUATION: Rare au Manitoba, au Québec et au Yukon.

REFERENCES/SOURCES

Böcher, T.W. 1952. A study of the circumpolar *Carex heleonastes — amblyorhyncha* complex. Acta Arctica 5:1-31.

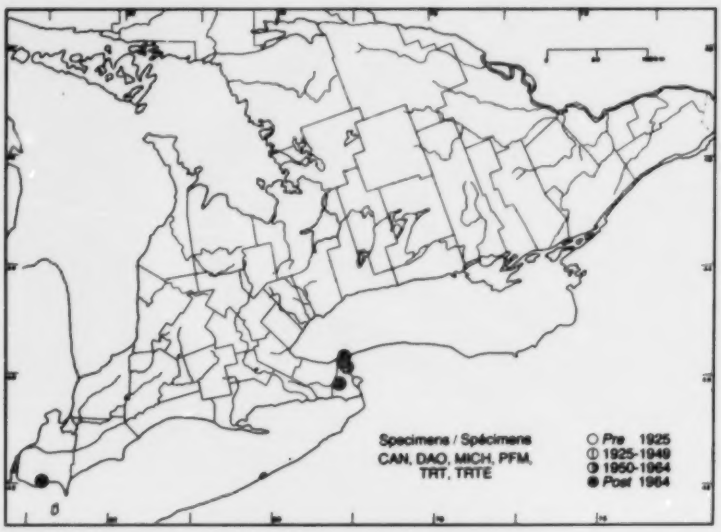
P.W. Ball & D.J. White

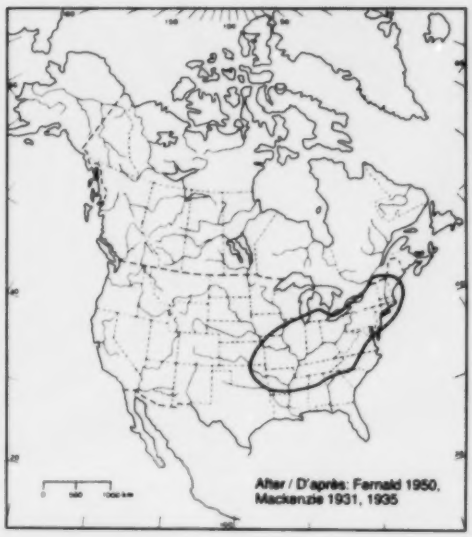
1982

CYPERACEAE

***Carex hirsutella* Mackenzie**

Hirsute sedge
Carex





HABITAT: Dry-mesic to wet-mesic hardwood forests.

STATUS: Rare in Canada.

HABITAT: Forêts de bois durs mésoxériques, mésoïques et mésohygriques.

SITUATION: Rare au Canada.

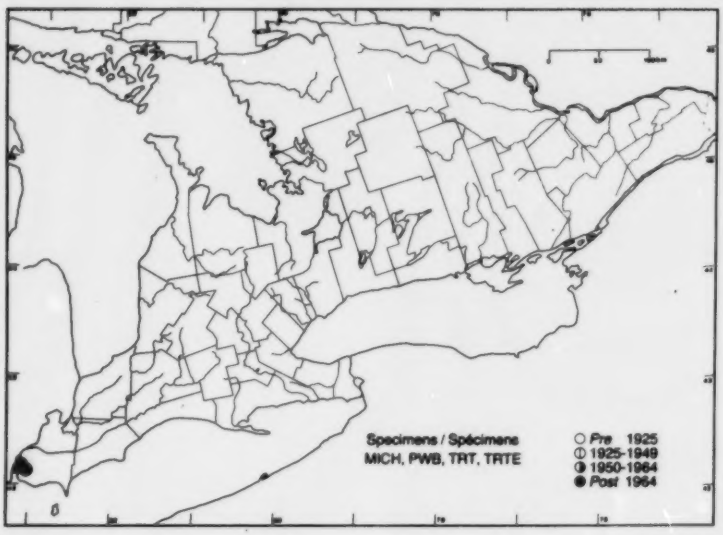
P.W. Ball & D.J. White

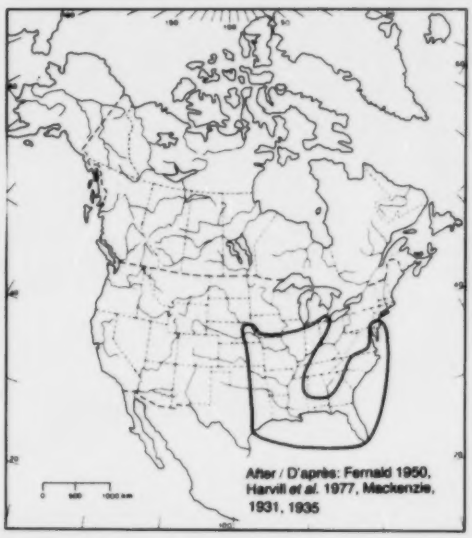
1982

CYPERACEAE

***Carex hyalinolepis* Steud.**

Translucent-scaled sedge
Carex





HABITAT: Roadside ditches and meadows.

STATUS: Rare in Canada and Michigan.

NOTES: Possibly overlooked because of its similarity to the common and widespread *C. lacustris* Willd.

HABITAT: Fossés au bord des routes et prairies.

SITUATION: Rare au Canada et au Michigan.

REMARQUES: Passe parfois inaperçue à cause de sa ressemblance avec une espèce commune et répandue, *C. lacustris* Willd.

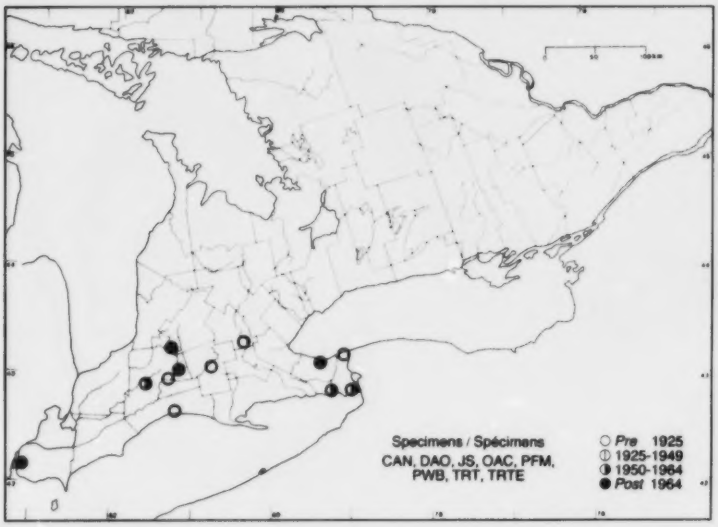
P.W. Ball & D.J. White

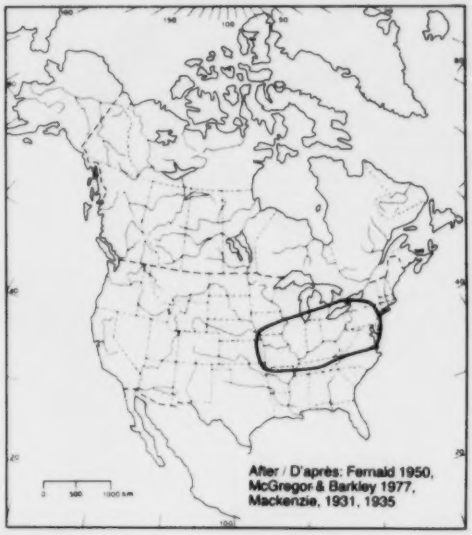
1982

CYPERACEAE

***Carex jamesii* Schwein.**

James' sedge
Carex de James





HABITAT: Dry-mesic to wet-mesic hardwood forests, often on floodplains.

STATUS: Rare in Canada. Endangered in North Carolina; rare in Arkansas and New Jersey.

HABITAT: Forêts de bois durs mésoxériques, mésoïques et mésohygriques, souvent dans les plaines inondable.

SITUATION: Rare au Canada. Menacée d'extinction en Caroline du Nord; rare en Arkansas et au New Jersey.

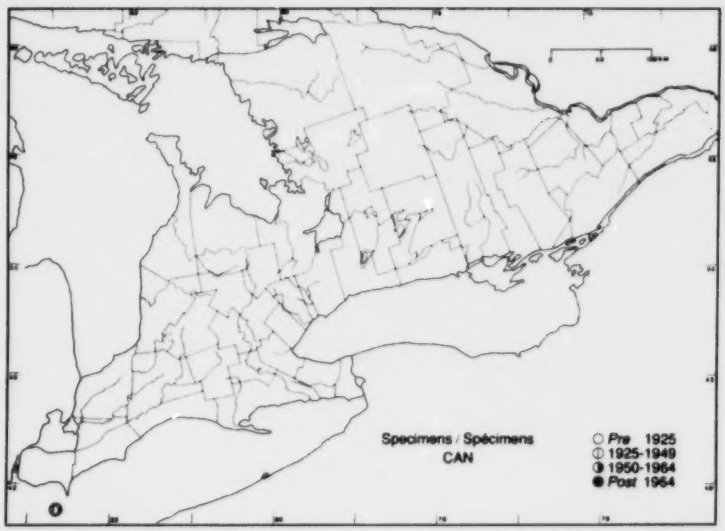
P.W. Ball & D.J. White

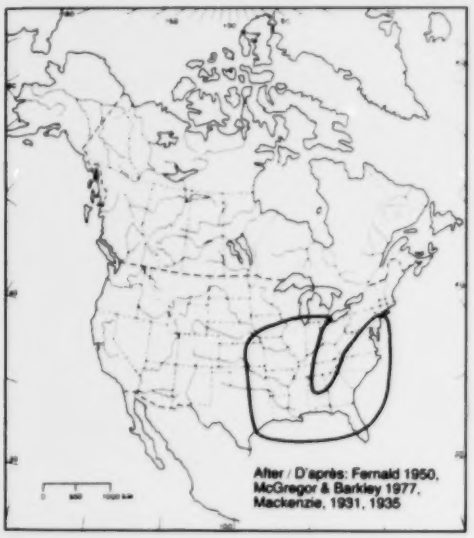
1982

CYPERACEAE

***Carex leavenworthii* Dew.**

Leavenworth's sedge
Carex de Leavenworth





HABITAT: Dry places.

STATUS: Rare in Canada.

NOTES: This species has not been collected in the province since 1882.

HABITAT: Milieux xériques.

SITUATION: Rare au Canada.

REMARQUES: Cette espèce n'a pas été récoltée dans la province depuis 1882.

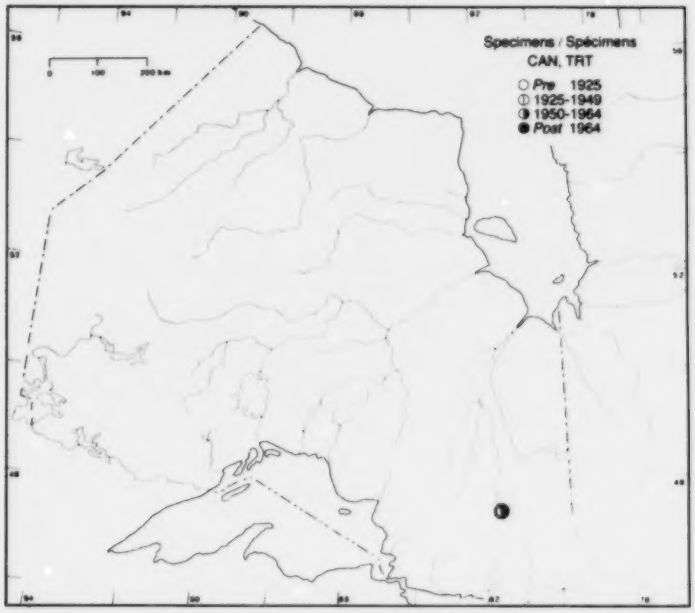
P.W. Ball & D.J. White

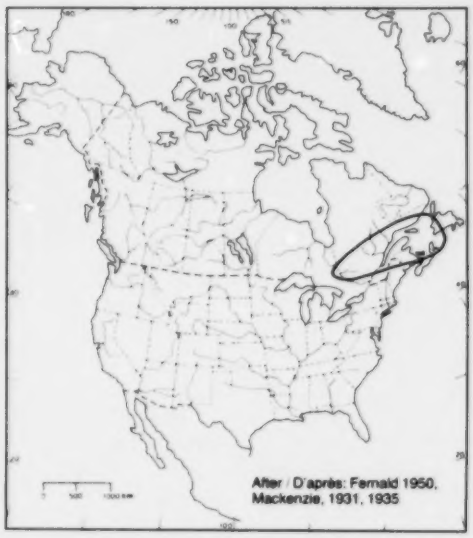
1982

CYPERACEAE

***Carex lepidocarpa* Tausch**
(*C. flava L.* var. *lepidocarpa* (Tausch) Godr.)

Scaly-fruited sedge
Carex lépidocarpé





HABITAT: Silty shores and fens.

STATUS: Rare in New Brunswick and Nova Scotia.

HABITAT: Rivages limoneux et marécages.

SITUATION: Rare au Nouveau-Brunswick et en Nouvelle-Ecosse.

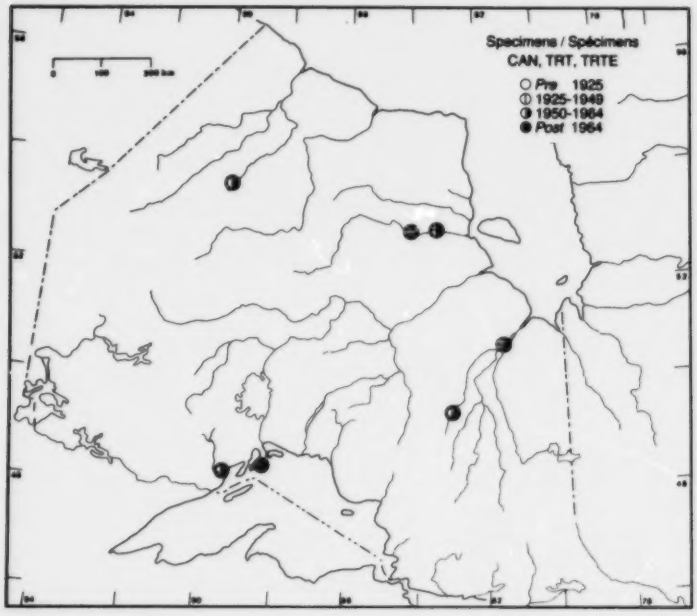
P.W. Ball & D.J. White

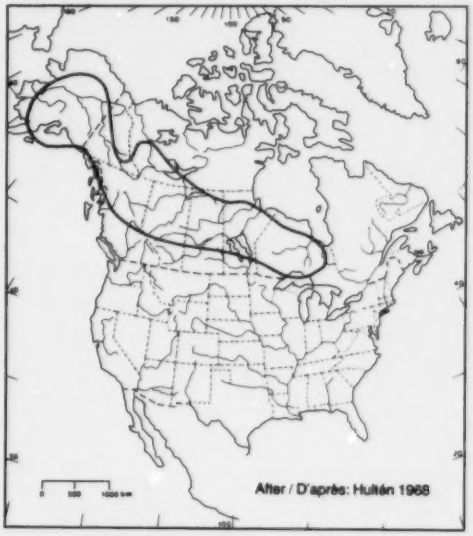
1982

CYPERACEAE

***Carex loliacea* L.**

Sedge
Carex





HABITAT: Bogs, muskegs, and black spruce forests.

NOTES: Widespread in northern Ontario, however, it is rare at all known localities.

HABITAT: Marais, tourbières et forêts d'épinettes noires.

REMARQUES: Répandue dans le nord de l'Ontario, cependant elle est rare dans les zones où elle pousse.

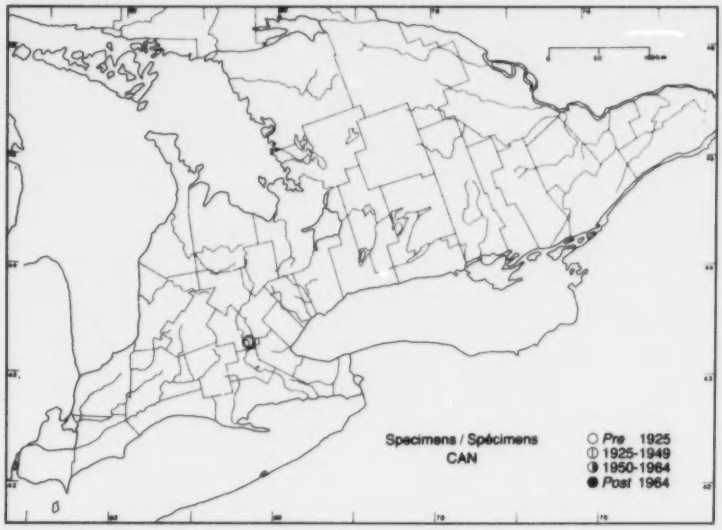
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex lupuliformis* Sartw. ex Dew.**

Hop-like sedge
Carex



HABITAT: Wet habitats.

STATUS: Rare in Canada. Endangered in Wisconsin; threatened in North Carolina; rare in Connecticut, New York, Ohio, and Virginia.

NOTES: This species has not been collected in the province since 1902.

HABITAT: Endroits mouillés.

SITUATION: Rare au Canada. Menacée d'extinction au Wisconsin; menacée en Caroline du Nord; rare au Connecticut, dans l'Etat de New York, en Ohio et en Virginie.

REMARQUES: Cette espèce n'a pas été récoltée dans la province depuis 1902.

REFERENCES/SOURCES

Reznicek, A.A., & P.W. Ball. 1974. The taxonomy of *Carex* series Lupulinae in Canada. Canadian Journal of Botany 52:2387-2399.

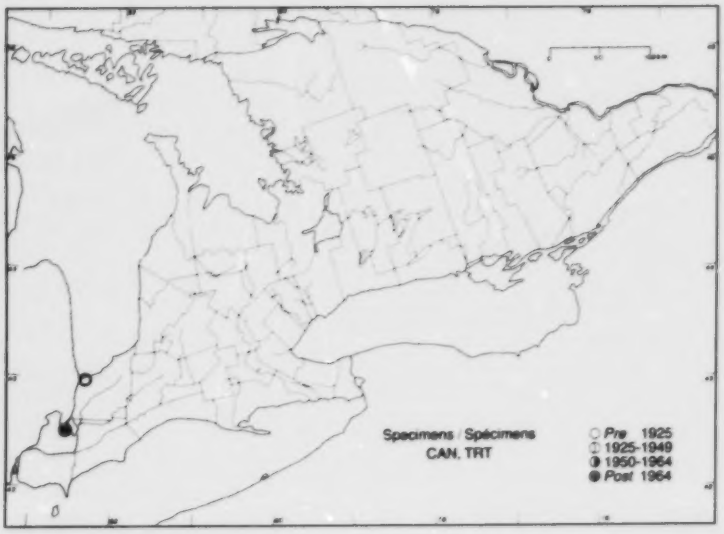
P.W. Ball & D.J. White

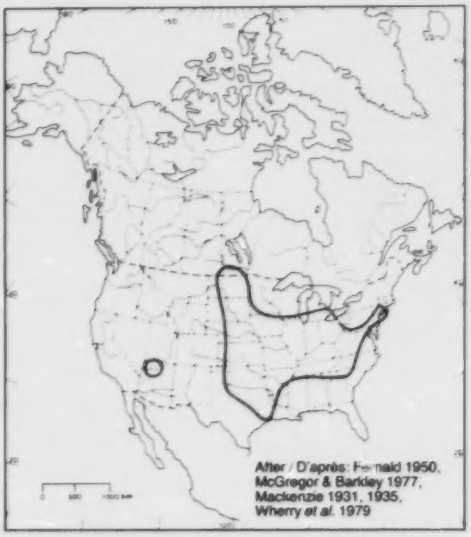
1982

CYPERACEAE

***Carex meadii* Dew.**

Mead's sedge
Carex de Mead





HABITAT: Prairies.

STATUS: Rare and possibly extirpated in Saskatchewan; threatened in Ohio; rare in Arizona and New York.

HABITAT: Prairies.

SITUATION: Rare et peut-être déracinée de la Saskatchewan; menacée en Ohio; rare en Arizona et dans l'Etat de New York.

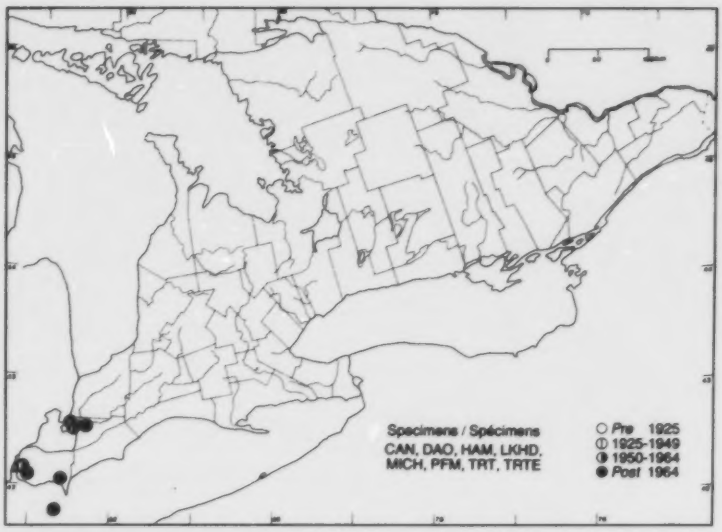
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex muskingumensis* Schwein.**

Muskingum sedge
Carex



HABITAT: Wet-mesic hardwood forests.

STATUS: Rare in Canada, Kansas, Minnesota, and Tennessee.

HABITAT: Forêts de bois durs mésohygriques.

SITUATION: Rare au Canada, au Kansas, au Minnesota et au Tennessee.

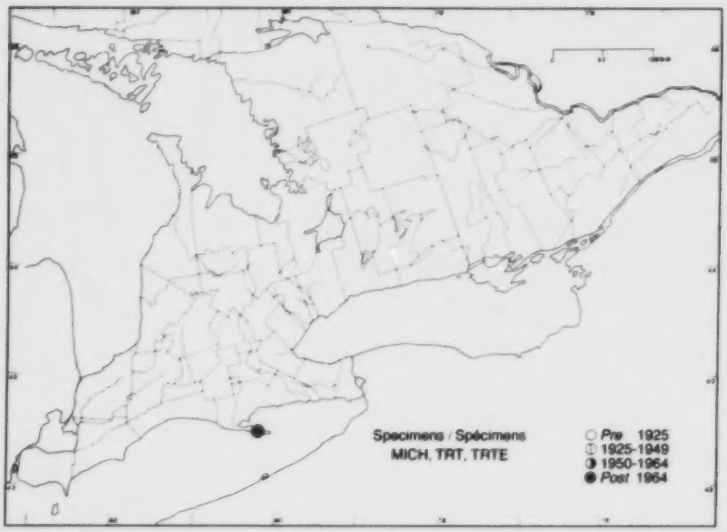
P.W. Ball & D.J. White

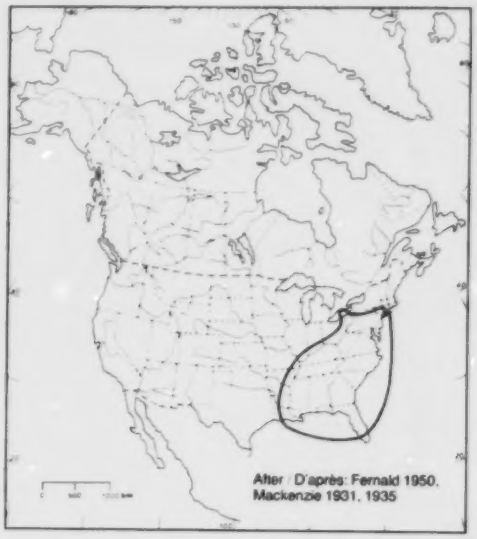
1982

CYPERACEAE

***Carex nigromarginata* Schwein.**

Black-edged sedge
Carex





HABITAT: Open deciduous woods on sand.

STATUS: Rare in Canada. Endangered in Indiana and Ohio; rare in Connecticut, Illinois, and New York.

HABITAT: Forêts de feuillus ouvertes, sur terrain sabloneux.

SITUATION: Rare au Canada. Menacée d'extinction en Indiana et en Ohio; rare au Connecticut, en Illinois et dans l'Etat de New York.

REFERENCES/SOURCES

Reznicek, A.A., & P.M. Catling, 1981. Cyperaceae new to Canada from Long Point, Norfolk County, Ontario. Canadian Field-Naturalist. Submitted/Soumis.

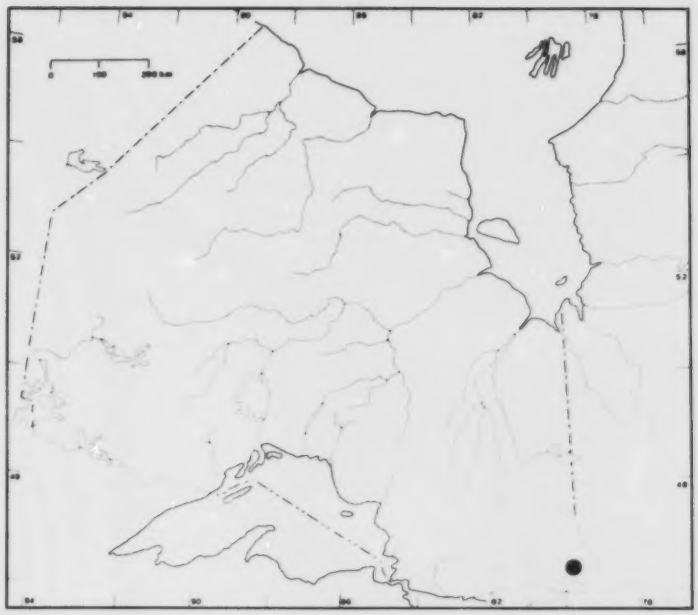
P.W. Ball & D.J. White

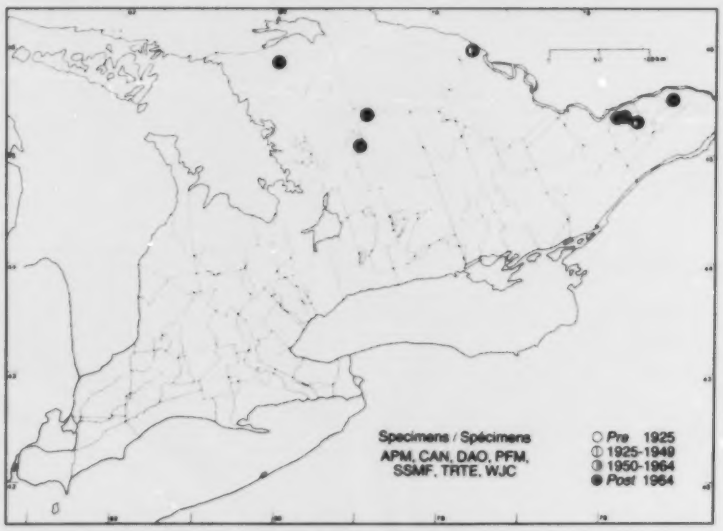
1982

CYPERACEAE

***Carex novae-angliae* Schwein.**

New England sedge
Carex de la Nouvelle-Angleterre





HABITAT: Mesic to wet-mesic hardwood forests.

STATUS: Endangered in New Jersey and rare in Connecticut.

NOTES: Wide ranging in Ontario, however, it is restricted to deciduous forest habitats on the Canadian Shield.

HABITAT: Forêts d'arbres feuillu allant de mésiques à humides/mésiques.

SITUATION: Menacée d'extinction au New Jersey et rare au Connecticut.

REMARQUES: Répandue en Ontario, cependant, elle se limite aux habitats de feuillus du Bouclier canadien.

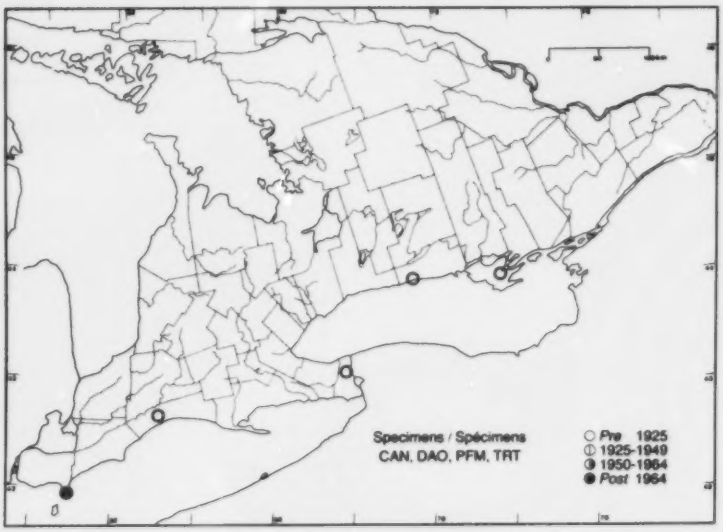
P.W. Ball & D.J. White

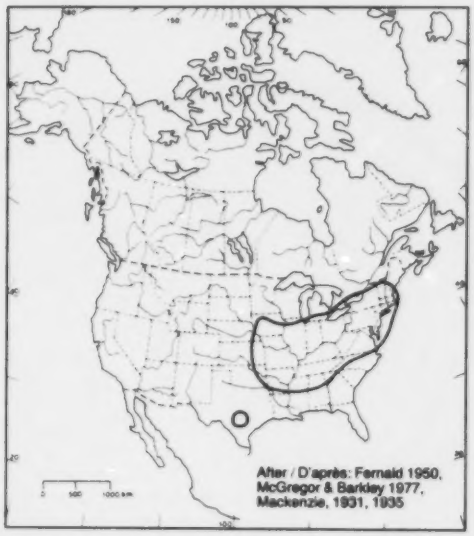
1982

CYPERACEAE

***Carex oligocarpa* Willd.**

Few-fruited sedge
Carex





HABITAT: Dry woods and banks.

STATUS: Rare in Canada. Possibly extirpated in Massachusetts and Texas; rare in Connecticut, Michigan, and Vermont.

HABITAT: Bois et berges xériques.

SITUATION: Rare au Canada. Peut-être déracinée du Massachusetts et du Texas; rare au Connecticut, au Michigan et au Vermont.

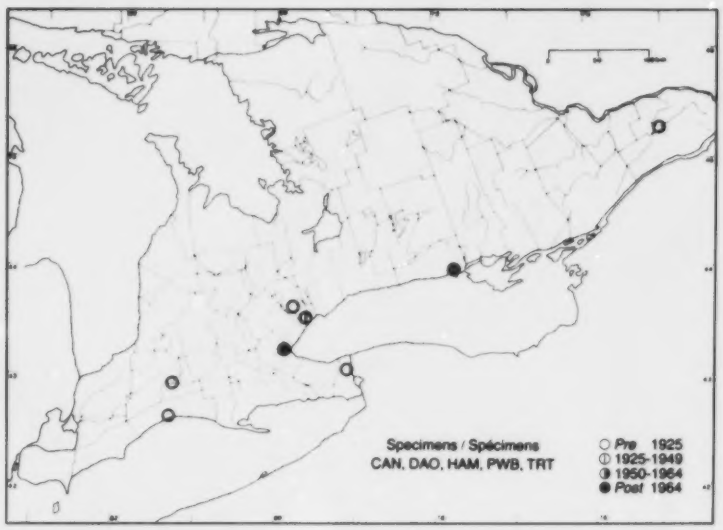
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex prasina* Wahlenb.**

Drooping sedge
Carex



HABITAT: Mesic to wet-mesic hardwood forests.

STATUS: Rare in Canada and endangered in Wisconsin.

NOTES: Similar to and often confused with the common and widespread *C. arctata* Boott.

HABITAT: Forêts d'arbres feuillus, allant de mésiques à humides/mésiques.

SITUATION: Rare au Canada et menacée d'extinction au Wisconsin.

REMARQUES: On la confond souvent avec la *C. arctata* Boott, espèce commune et répandue.

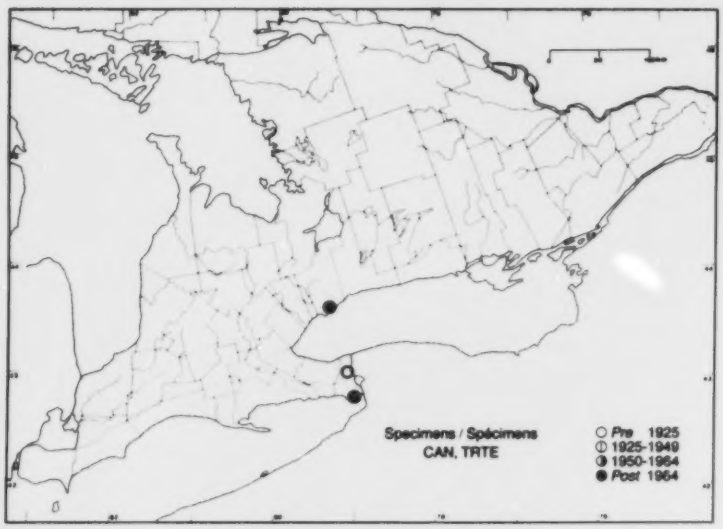
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex radiata* (Wahlenb.) Dew.**

Radiate sedge
Carex rayonnant



HABITAT: Dry woods on sandy or stony soil.

STATUS: Threatened in Ohio.

NOTES: Similar to and often confused with the common and widespread *C. rosea* Schkuhr.

HABITAT: Forêts sèches, sur terrain sablonneux ou rocailleux.

SITUATION: Menacée en Ohio.

REMARQUE: On la confond souvent avec la *C. rosea* Schkuhr, espèce commune et répandue.

REFERENCES/SOURCES

Laudenbach, J.M. 1976. The taxonomy of the *Carex rosea* group, series Bracteosae, in Canada. M.Sc. thesis. University of Toronto. 142 pp. Unpublished/inédit.

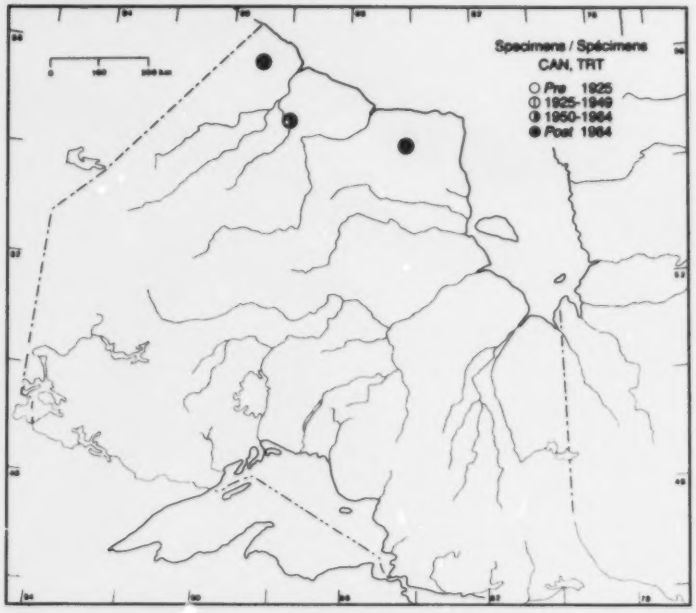
P.W. Ball & D.J. White

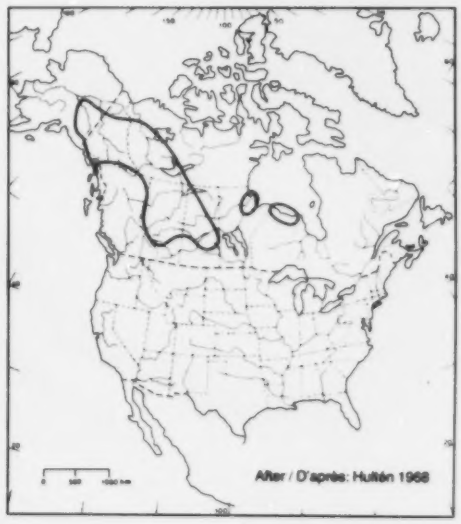
1982

CYPERACEAE

***Carex raymondii* Calder**
(*C. atratiformis* Britt. ssp. *raymondii* (Calder)
Pors., *C. atrata* L., p.p.)

Raymond's sedge
Carex de Raymond





HABITAT: Sandy gravel beach ridges.

STATUS: Rare in Manitoba.

NOTES: Treated in Argus & White (1977) as *C. atrata* L. which included *C. atratiformis* Britt. ssp. *atratiformis*. The latter is listed separately in the Atlas.

HABITAT: Arêtes des plages sabloneuses et couvertes de gravier.

SITUATION: Rare au Manitoba.

REMARQUES: Figure dans Argus & White (1977) sous le nom de *C. atrata* L., qui comprend le *C. atratiformis* Britt. ssp. *atratiformis*. Ce dernier figure séparément sur la liste de l'Atlas.

REFERENCES/SOURCES

Calder, J.A. 1952. Notes on the genus *Carex* 1. A new species of *Carex* from western Canada. Rhodora 54:246-250.

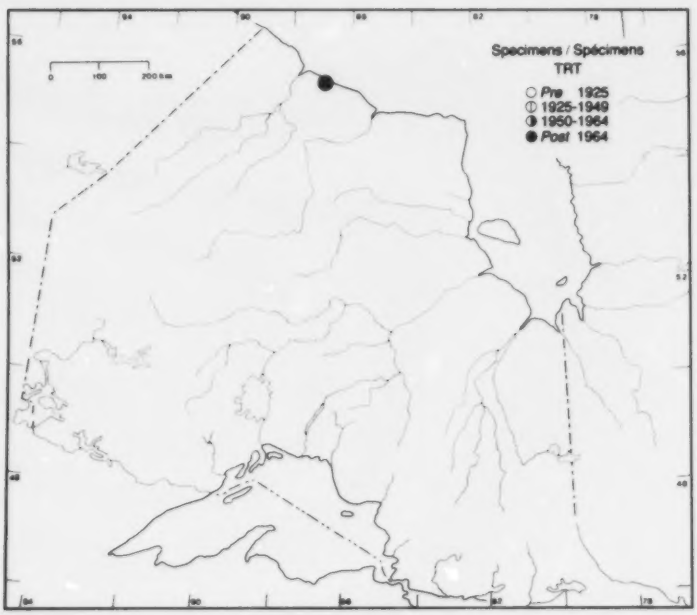
P.W. Ball & D.J. White

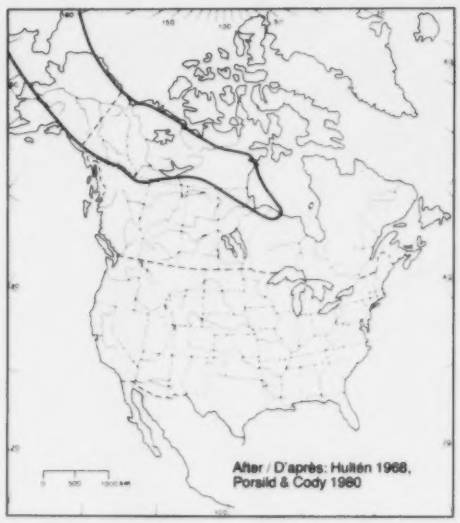
1982

CYPERACEAE

***Carex rotundata* Wahlenb.**

Round-fruited sedge
Carex





HABITAT: Moist tundra with scattered *Salix* thickets.

STATUS: Rare in the Yukon.

HABITAT: Toundra humide avec fourrés clairsemés de *Salix*.

SITUATION: Rare au Yukon.

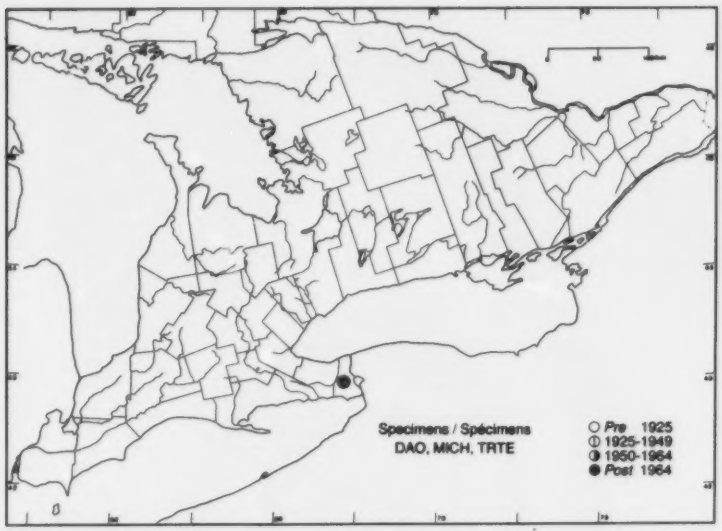
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex seorsa* Howe**

Divided sedge
Carex



HABITAT: Peaty edges of woodland pools.

STATUS: Rare in Canada. Endangered in Indiana; threatened in Michigan and Ohio; rare in New Hampshire.

HABITAT: Bords tourbeux des mares dans les bois.

SITUATION: Rare au Canada. Menacée d'extinction en Indiana; menacée au Michigan et en Ohio; rare au New Hampshire.

REFERENCES/SOURCES

Reznicek, A.A., & P.W. Ball. 1980. The taxonomy of *Carex* section Stellulatae in North America north of Mexico. Contributions from the University of Michigan Herbarium 14:153-203.

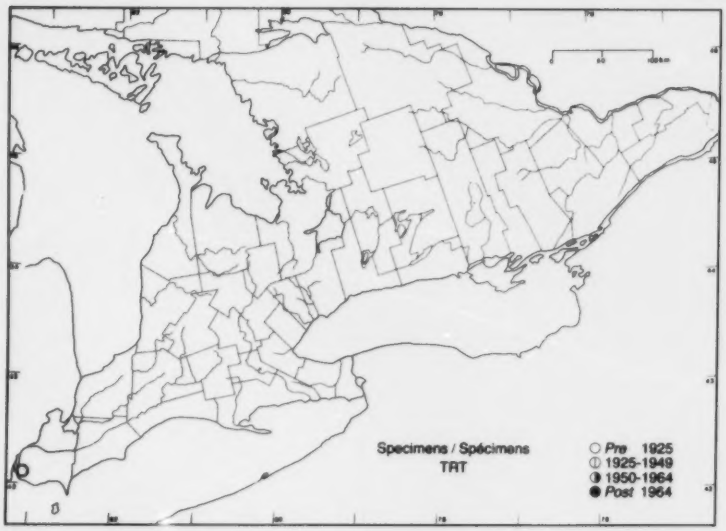
P.W. Ball, P.M. Catling, A.A. Reznicek, & D.J. White

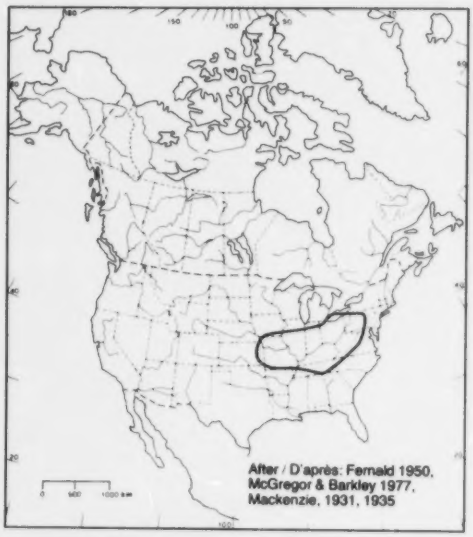
1982

CYPERACEAE

***Carex shortiana* Dew.**

Short'sedge
Carex de Short.





HABITAT: Hardwood forests and meadows.

STATUS: Rare in Canada and Iowa.

NOTES: This species has not been collected in the province since 1901.

HABITAT: Forêts de bois durs et prairies.

SITUATION: Rare au Canada et en Iowa.

REMARQUES: Cette espèce n'a pas été récoltée dans la province depuis 1901.

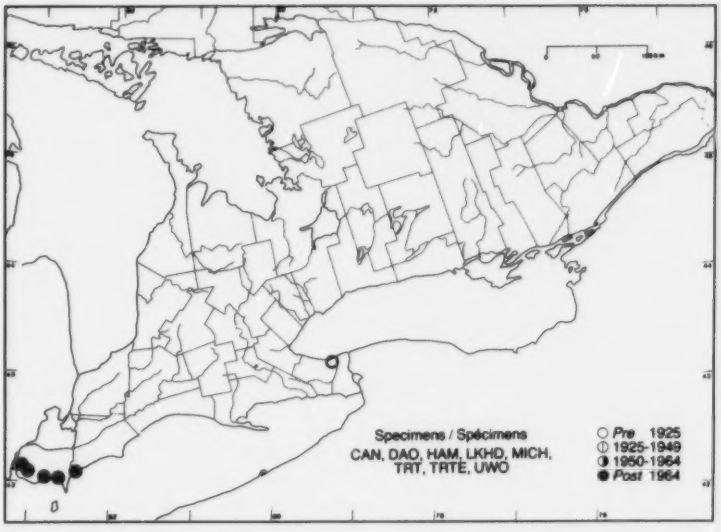
P.W. Ball & D.J. White

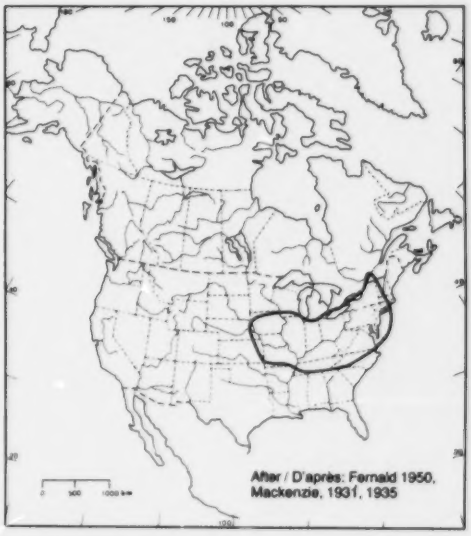
1982

CYPERACEAE

***Carex squarrosa* L.**

Squarrose sedge
Carex squarreux





HABITAT: Mesic to wet hardwood forests, often on floodplains.

STATUS: Rare in Michigan.

NOTES: Included with *C. typhina* Michx. in Argus & White (1977), but it is listed separately in the Atlas.

HABITAT: Forêts de feuillus, allant de mésiques à humides, souvent sur des plaines inondées.

SITUATION: Rare au Michigan.

REMARQUES: Compris dans l'espèce *C. typhina* Michx. dans Argus & White (1977), mais elle figure séparément sur la liste de l'Atlas.

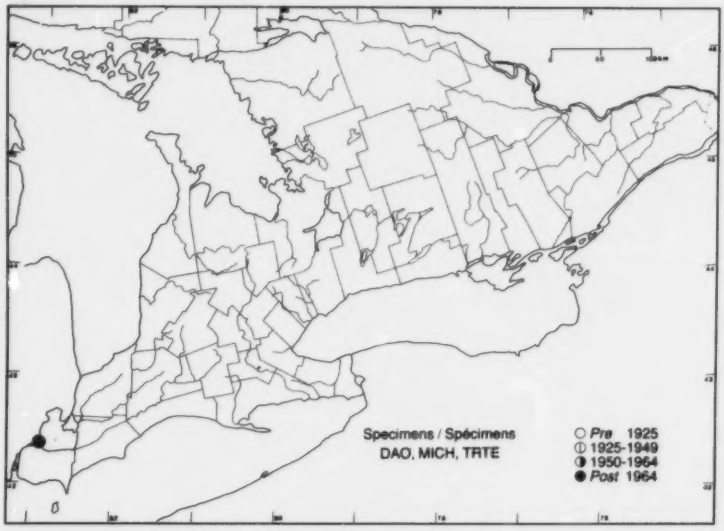
P.W. Ball & W.J. White

1982

CYPERACEAE

***Carex suberecta* (Olney) Britt.**

Sedge
Carex



HABITAT: Moist meadows and shores.

STATUS: Rare in Canada. Endangered in Ohio and Wisconsin; rare in Virginia.

HABITAT: Prairies humides et rivages.

SITUATION: Rare au Canada. Menacée d'extinction en Ohio et au Wisconsin; rare en Virginie.

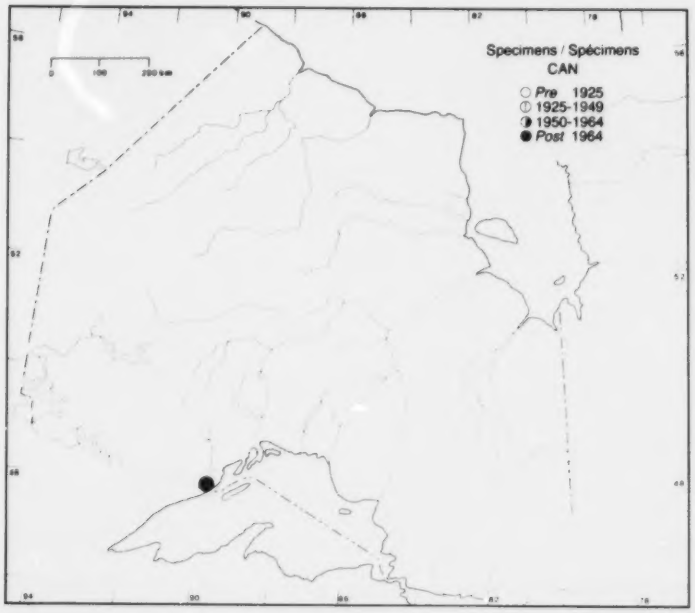
P.W. Ball, B. Boivin, & D.J. White

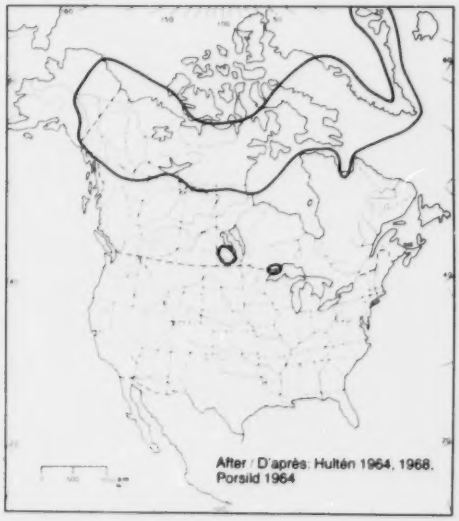
1982

CYPERACEAE

Carex supina Willd. ex Wahlenb. ssp. *spaniocarpa* (Steud.) Hultén

Sedge
Carex





HABITAT: Cliff tops.

HABITAT: Sommets de falaises.

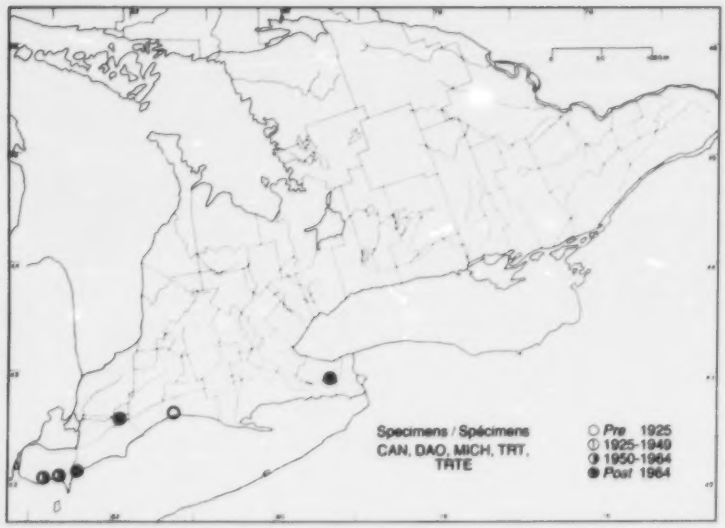
P.W. Ball & D.J. White

1982

CYPERACEAE

Carex swanii (Fern.) Mackenzie

Swan's sedge
Carex de Swan



HABITAT: Openings and edges in hardwood forests.

STATUS: Rare in New Brunswick, Quebec, and Wisconsin.

HABITAT: Clairières et bordures des forêts de feuillus.

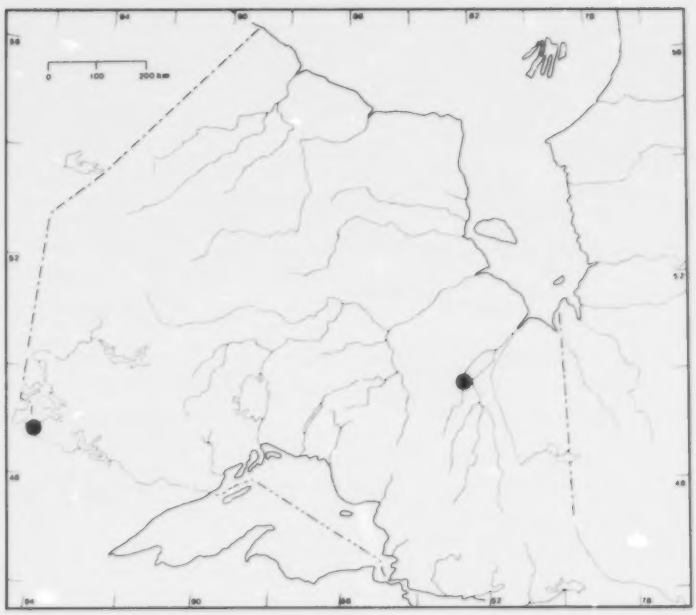
SITUATION: Rare au Nouveau-Brunswick, au Québec et au Wisconsin.

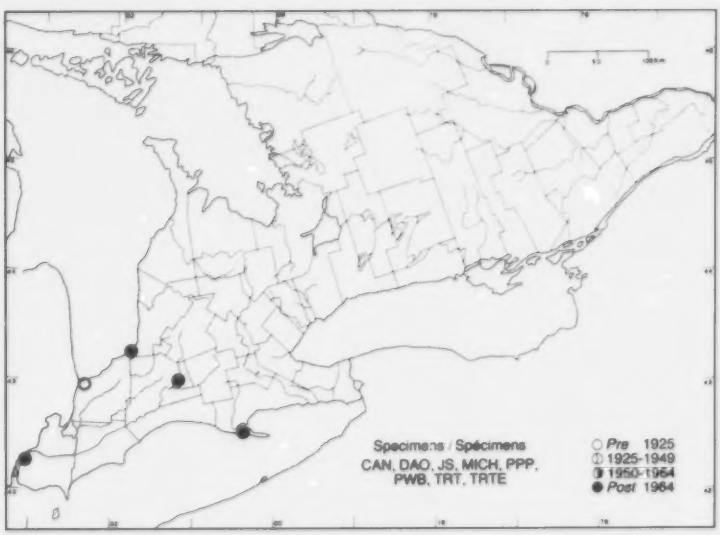
P.W. Ball & D.J. White

1982

***Carex tetanica* Schkuhr**

Rigid sedge
Carex





HABITAT: Moist grassland, sandy shores, and ditches.

STATUS: Rare in Saskatchewan. Endangered in North Carolina; threatened in Ohio; rare in Arkansas, Connecticut, Iowa, Missouri, and Virginia.

NOTES: Frequently overlooked in the field.

HABITAT: Steppes humides, rivages sablonneux et fossés.

SITUATION: Rare en Saskatchewan. Menacée d'extinction en Caroline du Nord; menacée en Ohio; rare en Arkansas, au Connecticut, en Iowa, au Missouri et en Virginie.

REMARQUES: Passe fréquemment inaperçue dans la nature.

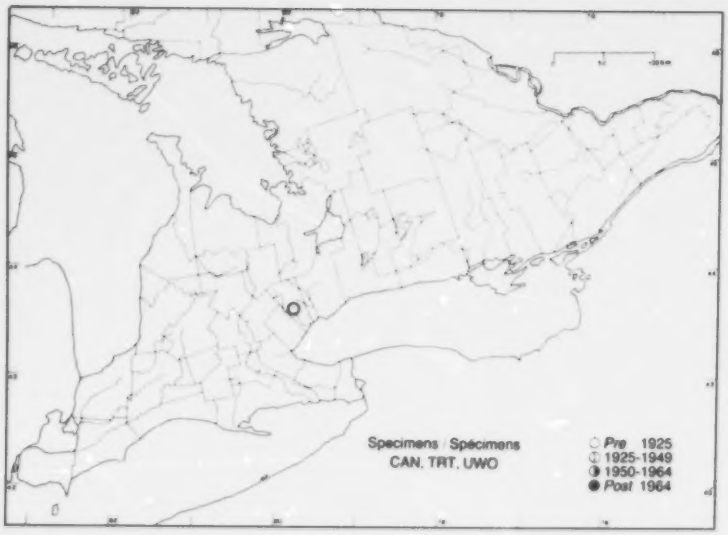
P.W. Ball & D.J. White

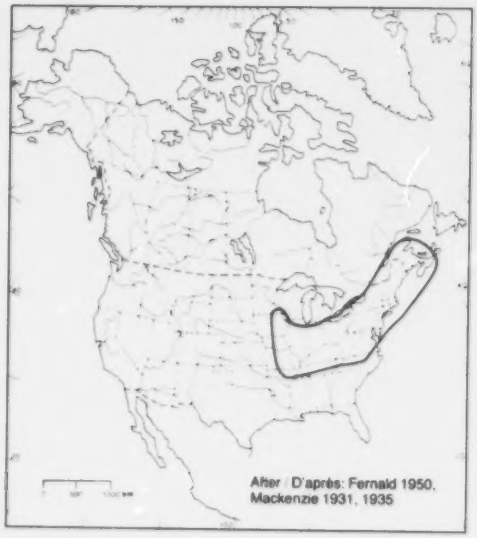
1982

CYPERACEAE

***Carex torta* Boott**

Twisted sedge
Carex tordu





HABITAT: Moist grasslands.

NOTES: This plant has not been collected in the province since 1910.

HABITAT: Steppes humides.

REMARQUES: Cette plante n'a pas été récoltée dans la province depuis 1910.

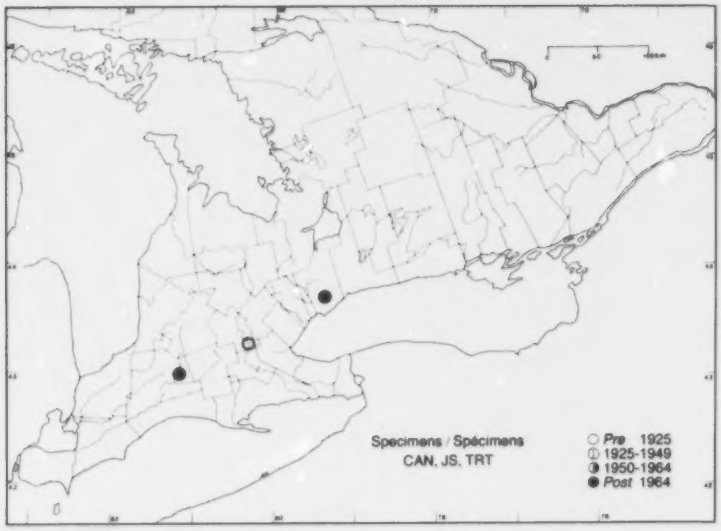
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex trichocarpa* Muhl. ex Schkuhr**

Hairy-fruited sedge
Carex à fruits velus



HABITAT: Riverbanks.

STATUS: Threatened in Indiana; rare in Michigan, Minnesota, Missouri, and Ohio.

HABITAT: En bordures des rivières.

SITUATION: Menacée en Indiana; rare au Michigan, au Minnesota, au Missouri et en Ohio.

REFERENCES/SOURCES

Core, E.L. 1968. The range of *Carex trichocarpa* Muhl. Castanea 33:151-152.

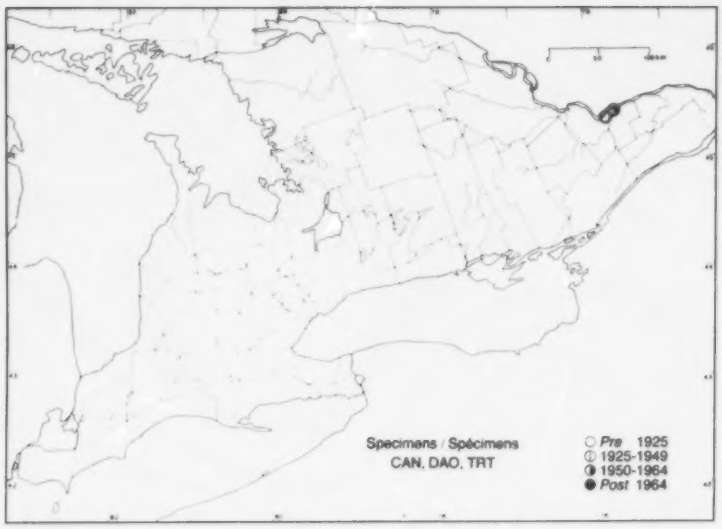
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex typhina* Michx.**

Cattail sedge
Carex massette



HABITAT: Wet-mesic hardwood forests.

STATUS: Possibly extirpated in Massachusetts and Texas; threatened in Michigan; rare in Maine.

NOTES: Included in *C. squarrosa* L. in Argus & White (1977), but each species is listed separately in the Atlas.

HABITAT: Forêts de feuillus allant d'humides à mésiques.

SITUATION: Peut-être déracinée du Massachusetts et du Texas; menacée au Michigan; rare dans le Maine.

REMARQUES: Argus & White (1977) la classe dans l'espèce *C. squarrosa* L. mais chaque espèce figure séparément sur la liste de l'Atlas.

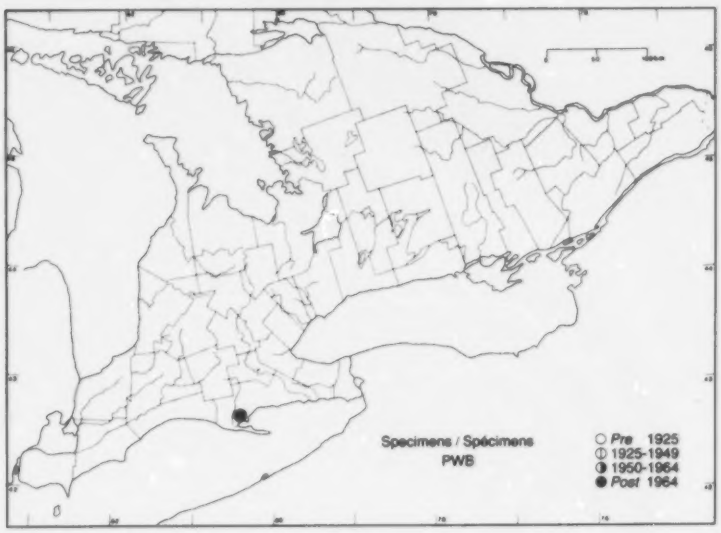
P.W. Ball & D.J. White

1982

CYPERACEAE

***Carex virescens* Muhl. ex Schkuhr**

Ribbed sedge
Carex verdâtre



HABITAT: Mesic hardwood forests.

STATUS: Rare in Quebec.

HABITAT: Forêts de feuillus mésiques.

SITUATION: Rare au Québec.

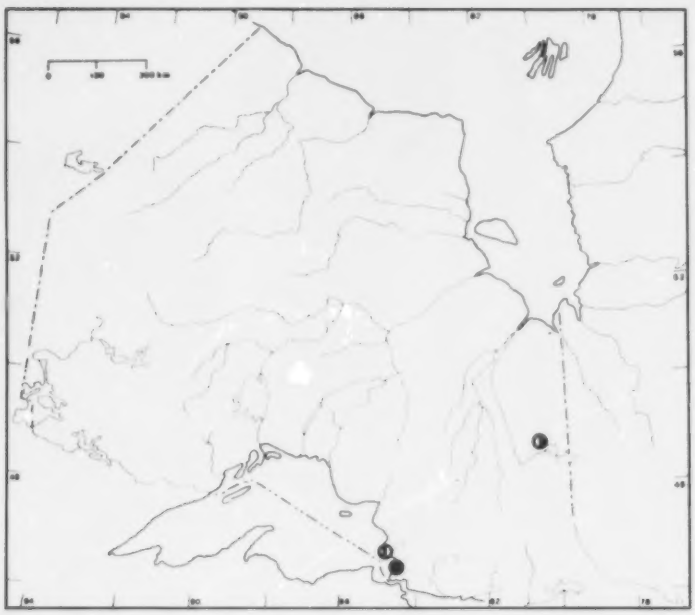
P.W. Ball & D.J. White

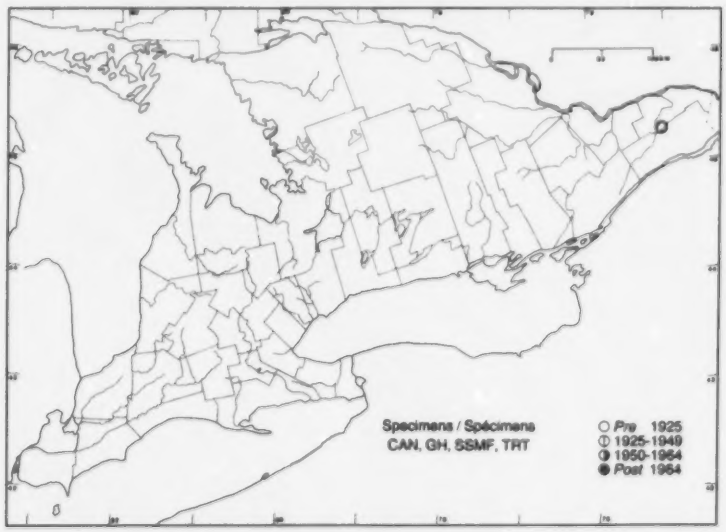
1982

CYPERACEAE

***Carex wiegandii* Mackenzie**

Wiegand's sedge
Carex de Wiegand





HABITAT: Black spruce bogs and alder swamps.

STATUS: Rare in New Hampshire, Pennsylvania, and Vermont.

HABITAT: Fondrières d'épinette noire et marécages d'aulnes.

SITUATION: Rare au New Hampshire, en Pennsylvanie et au Vermont.

REFERENCES/SOURCES

Reznicek, A.A., & P.W. Ball. 1980. The taxonomy of *Carex* section Stellulatae in North America north of Mexico. Contributions from the University of Michigan Herbarium 14:153-203.

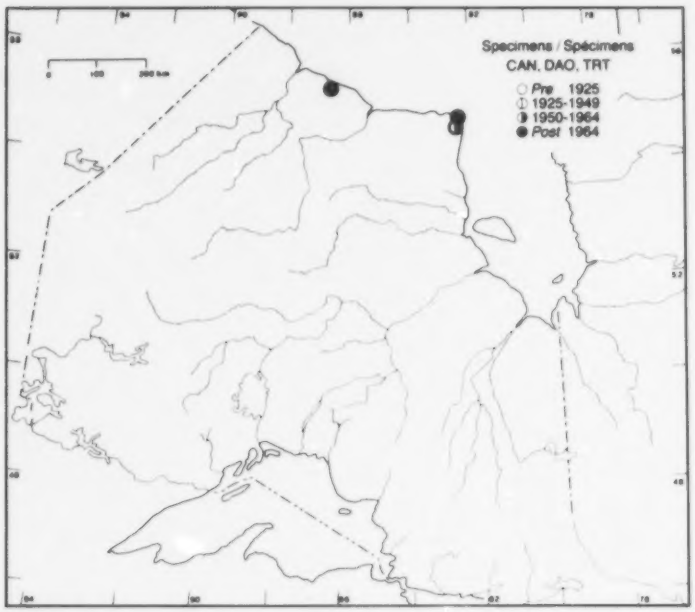
P.W. Ball & D.J. White

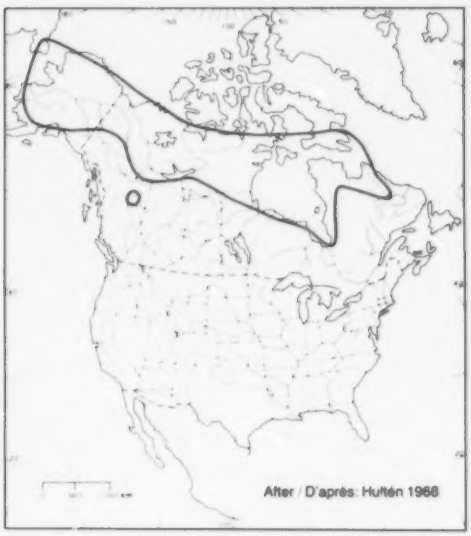
1982

CYPERACEAE

***Carex williamsii* Britt.**
(*C. capillaris* L. var. *williamsii* (Britt.) Boivin)

William's sedge
Carex de Williams





HABITAT: Moist tundra.

STATUS: Rare in British Columbia, Manitoba, and the Yukon.

NOTES: Possibly overlooked because of its similarity to dwarf individuals of the common and widespread *C. capillaris*.

HABITAT: Toundra humide.

SITUATION: Rare en Colombie-Britannique, au Manitoba et au Yukon.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec les petits spécimens du *C. capillaris*, espèce commune et répandue.

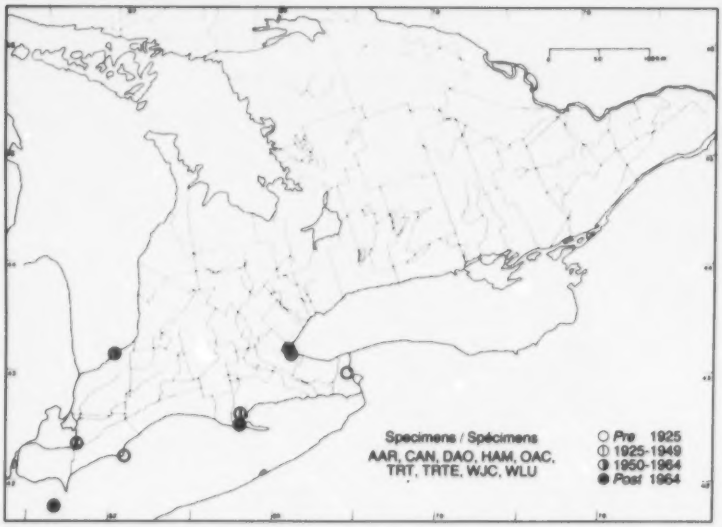
P.W. Ball & D.J. White

1982

CYPERACEAE

***Cyperus erythrorhizos* Muhl.**

Red-rooted cyperus
Souchet



HABITAT: Marshes and moist shores.

STATUS: Rare in Canada and Colorado.

HABITAT: Marécages et rivages humides.

SITUATION: Rare au Canada et au Colorado.

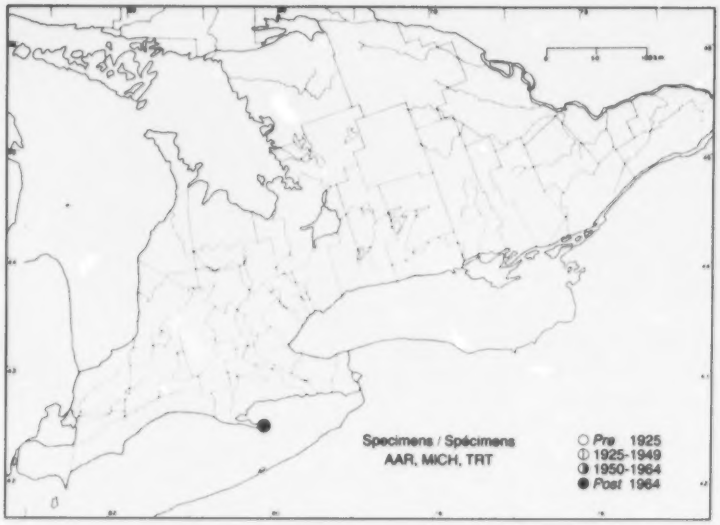
P.W. Ball & D.J. White

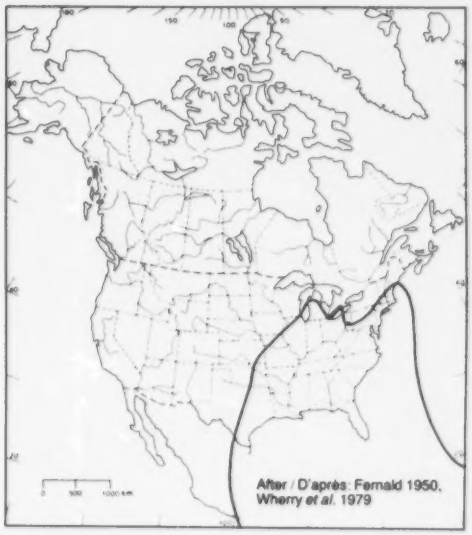
1982

CYPERACEAE

***Cyperus flavescens* L.**

Galingale, yellow cyperus
Souchet





HABITAT: Damp sand.

STATUS: Rare in Canada.

HABITAT: Sable humide.

SITUATION: Rare au Canada.

REFERENCES/SOURCES

Reznicek, A.A., & P.M. Catling. 1981. Cyperaceae new to Canada from Long Point, Norfolk County, Ontario. Canadian Field-Naturalist. Submitted/soumis.

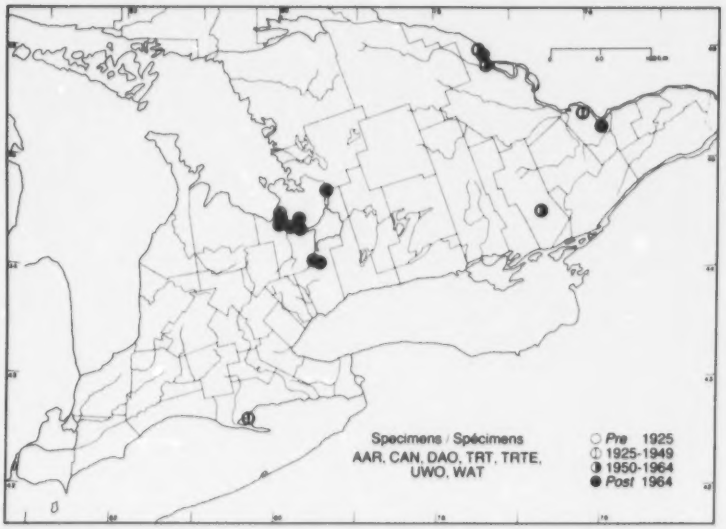
P.W. Ball & D.J. White

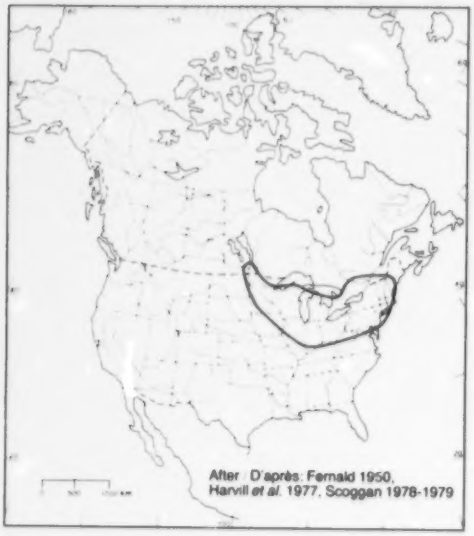
1982

CYPERACEAE

***Cyperus houghtonii* Torr.**

Houghton's cyperus
Souchet de Houghton





HABITAT: Open sandy areas.

STATUS: Possibly extirpated in Maine; rare in Indiana, Minnesota, New Hampshire, Ohio, Pennsylvania, Vermont, and Virginia.

NOTES: Occurs rather widely in southern Ontario, however, it is restricted to an uncommon habitat.

HABITAT: Zones sablonneuses ouvertes.

SITUATION: Peut-être déracinée du Maine; rare en Indiana, au Minnesota, au New Hampshire, en Ohio, en Pennsylvanie, au Vermont et en Virginie.

REMARQUES: On le retrouve assez souvent dans le sud de l'Ontario, mais il se limite à des habitats peu communs.

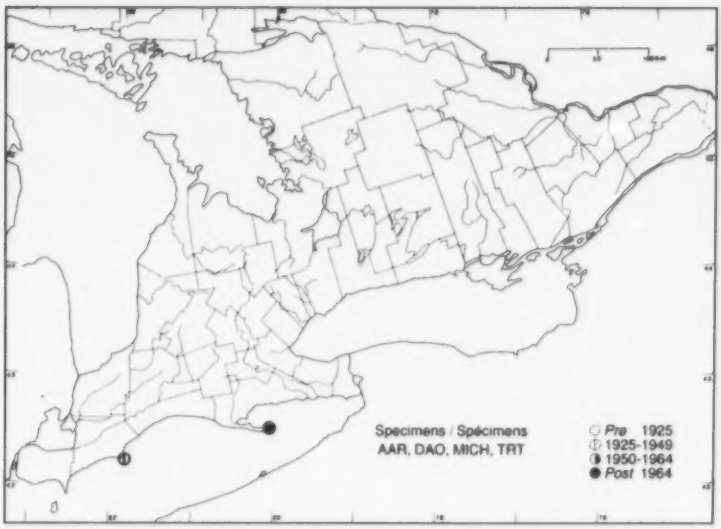
P.W. Ball & D.J. White

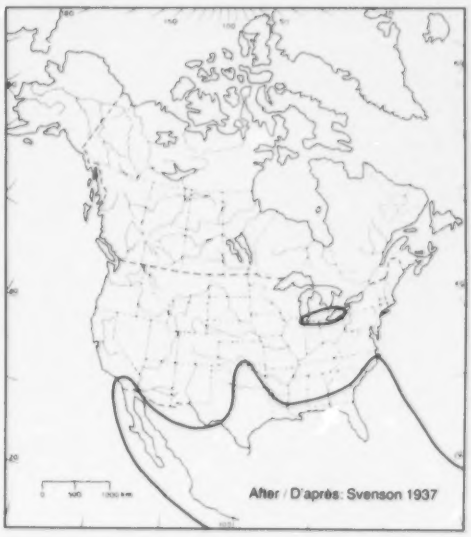
1982

CYPERACEAE

***Eleocharis caribaea* (Rottb.) Blake**
(*E. geniculata* (L.) R. & S.)

Spike-rush
Eléocharide





HABITAT: Wet sandy shores.

STATUS: Rare in Canada. Possibly extirpated in Kansas; endangered in Indiana; threatened in Michigan.

HABITAT: Rivages de sable mouillé.

SITUATION: Rare au Canada. Peut-être déracinée du Kansas; menacée d'extinction en Indiana; menacée au Michigan.

REFERENCES/SOURCES

Svenson, H.K. 1937. Monographic studies in the genus *Eleocharis*. IV. Rhodora 39:210-231, 236-273.

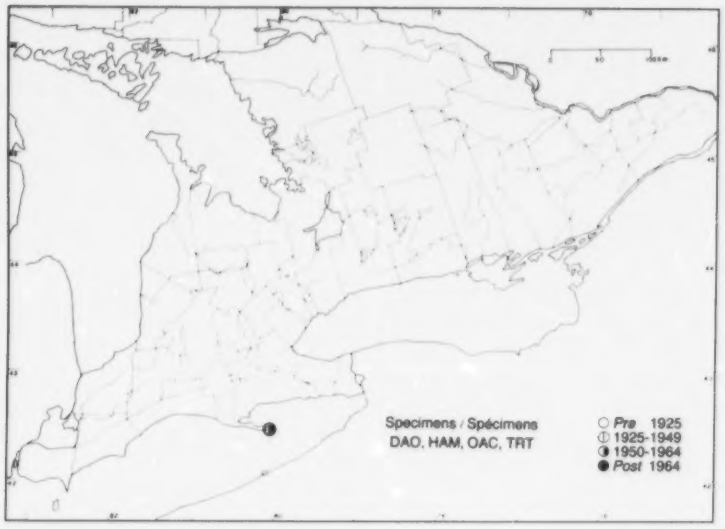
P.W. Ball & D.J. White

1982

CYPERACEAE

Eleocharis equisetoides **(Ell.) Torr.**

Spike-rush
Eléocharide



HABITAT: Wet marshes and shallow water.

STATUS: Rare in Canada. Extirpated in Wisconsin; endangered in Missouri and New Jersey; threatened in Indiana; rare in Connecticut, Massachusetts, New York, Tennessee, and Virginia.

HABITAT: Marécages mouillés et eaux maigres.

SITUATION: Rare au Canada. Déracinée du Wisconsin; menacée d'extinction au Missouri et au New Jersey; menacée en Indiana; rare au Connecticut, au Massachusetts, dans l'Etat de New York, au Tennessee et en Virginie.

REFERENCES/SOURCES

Svenson, H.K. 1939. Monographic studies in the genus *Eleocharis*. V. Rhodora 41:1-19, 43-77, 90-110.

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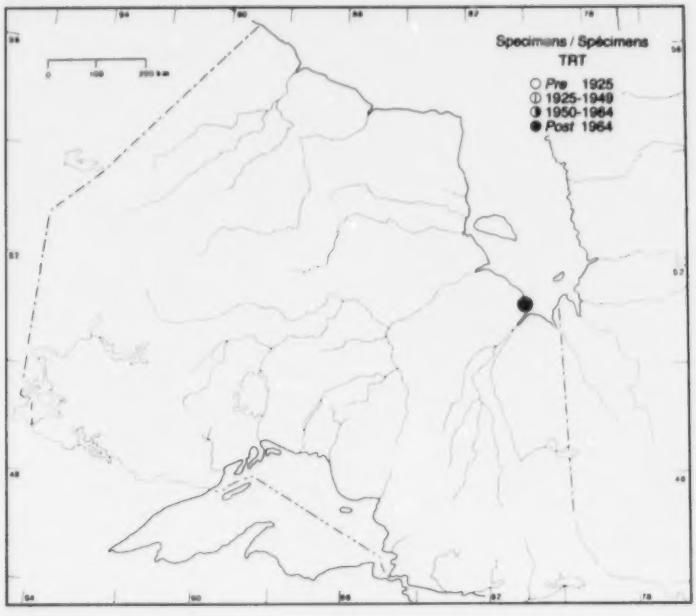
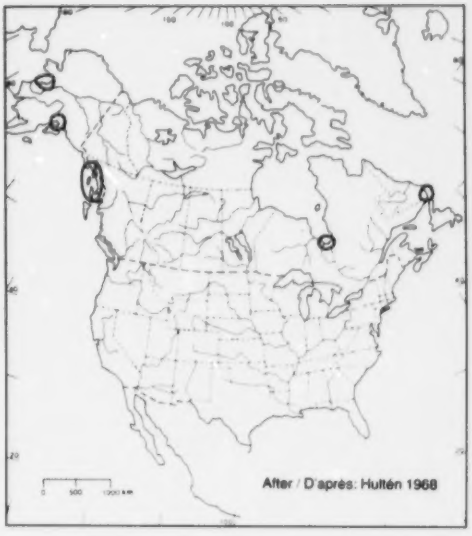
1982

CYPERACEAE

***Eleocharis kamtschatica* (C.A. Meyer) Komarov**

Kamtschatka spike-rush
Eléocharide





HABITAT: Supratidal meadows and shallow water.

STATUS: Rare in Quebec.

NOTES: Probably overlooked due to its similarity to *E. smallii* Britt. and *E. uniglumis* (Link) Schultes.

HABITAT: Prés et eaux peu profondes.

SITUATION: Rare au Québec.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec la *E. smallii* Britt. et la *E. uniglumis* (Link) Schultes.

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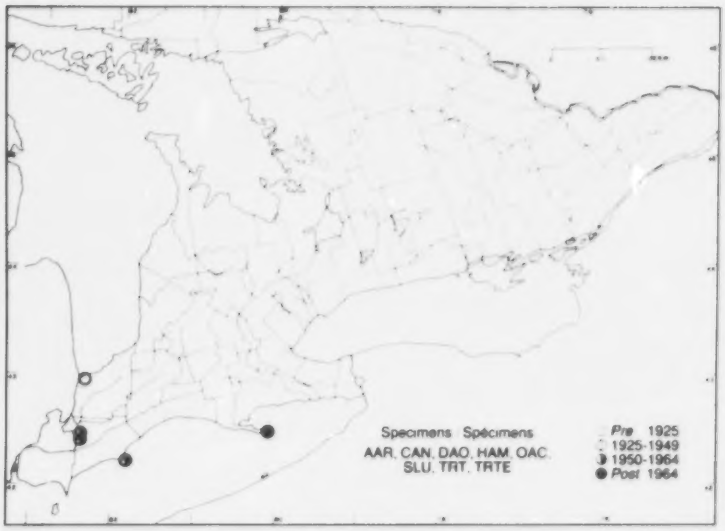
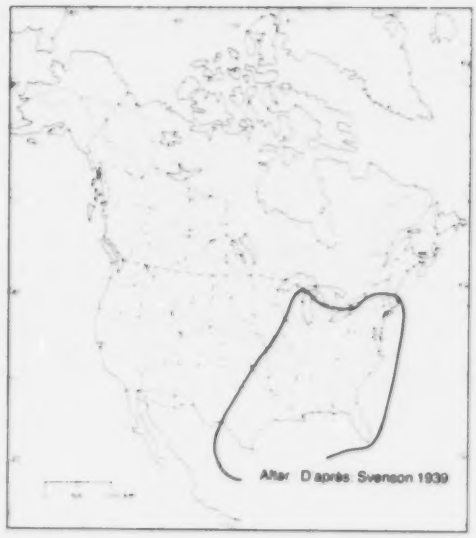
CYPERACEAE

***Eleocharis quadrangulata* (Michx.) R. & S.**

Four-angled spike-rush
Eléocharide





HABITAT: Ponds, wet meadows, and shores.

STATUS: Rare in Canada. Probably extirpated in Wisconsin; threatened in Ohio; rare in Connecticut, Kansas, Massachusetts, New Jersey, New York, and Pennsylvania.

HABITAT: Etangs, prairies mouillées et rivages.

SITUATION: Rare au Canada. Probablement déracinée du Wisconsin, menacée en Ohio; rare au Connecticut, au Kansas, au Massachusetts, au New Jersey, dans l'Etat de New York et en Pennsylvanie.

REFERENCES/SOURCES

Svenson, H.K. 1939. Monographic studies in the genus *Eleocharis*. V. Rhodora 41:1-19, 43-77, 90-110.

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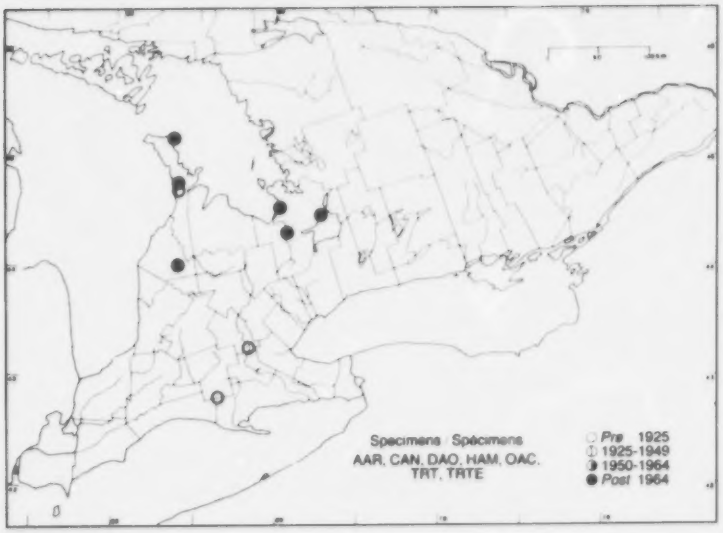
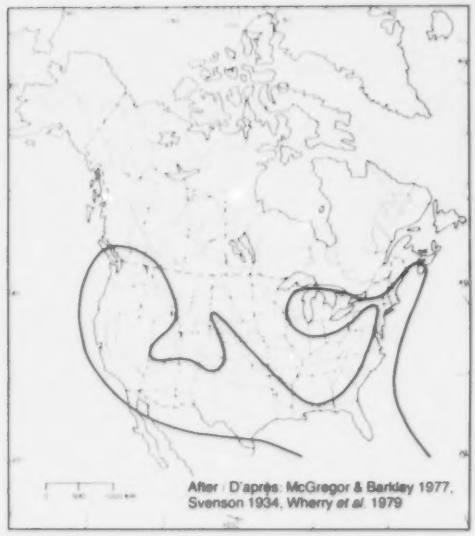
CYPERACEAE

***Eleocharis rostellata* Torr.**

Beaked spike-rush
Eléocharide





HABITAT: Fens and shores.

STATUS: Rare in Canada. Probably extirpated in Florida; endangered in Wisconsin; threatened in North Carolina; rare in Maine, Ohio, Pennsylvania, and Virginia.

HABITAT: Marécages et rivages.

SITUATION: Rare au Canada. Vraisemblablement déracinée de la Floride; menacée d'extinction en Caroline du Nord; rare dans le Maine, en Ohio, en Pennsylvanie et en Virginie.

REFERENCES/SOURCES

Svenson, H.K. 1934. Monographic studies in the genus *Eleocharis*. III. Rhodora 36:377-389.

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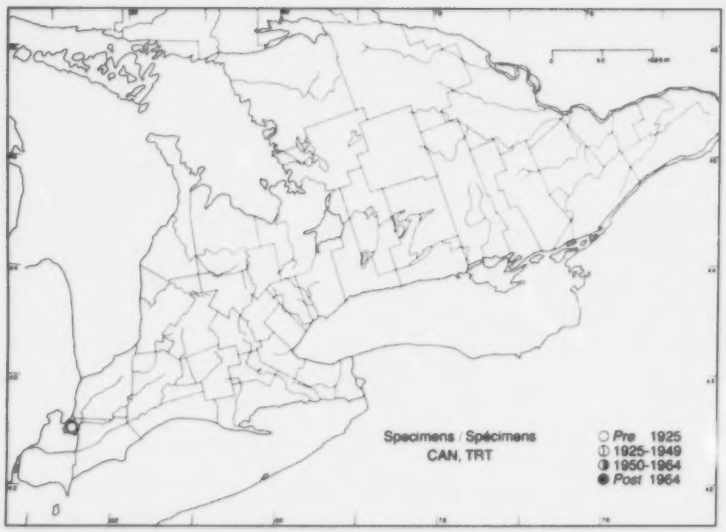
1982

CYPERACEAE

***Fimbristylis spadicea* (L.) Vahl**
(*F. drummondii* auct.)

Fimbristylis
Fimbristyle



HABITAT: Prairies.

STATUS: Rare in Canada.

HABITAT: Prairies.

SITUATION: Rare au Canada.

REFERENCES/SOURCES

Kral, R. 1971. A treatment of *Abilgaardia, Bulbostylis* and *Fimbristylis* (Cyperaceae) for North America. Sida 4:57-227.

Soper, J.H. 1962. Some genera of restricted range in the Carolinian flora of Canada. Transactions of the Royal Canadian Institute 34:3-56.

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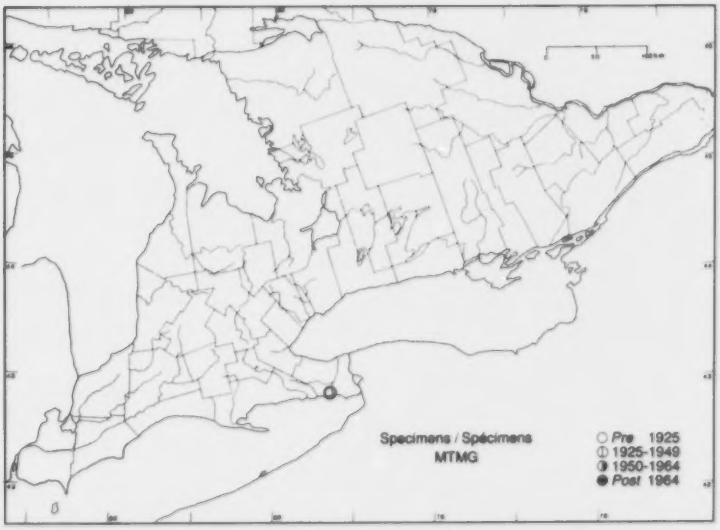
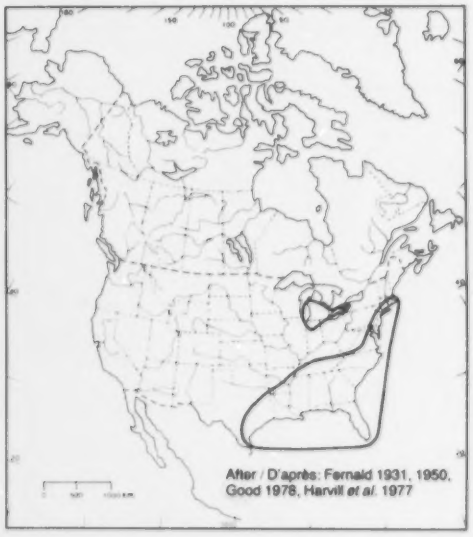
CYPERACEAE

***Fuirena pumila* (Torr.) Spreng.**
(*F. squarrosa* auct.)

Umbrella-grass





HABITAT: Wet shores.

STATUS: Rare in Canada. Possibly extirpated in Connecticut; threatened in Michigan; rare in Massachusetts and Tennessee.

HABITAT: Rivages mouillés.

SITUATION: Rare au Canada. Peut-être déracinée du Connecticut; menacée au Michigan; rare au Massachusetts et au Tennessee.

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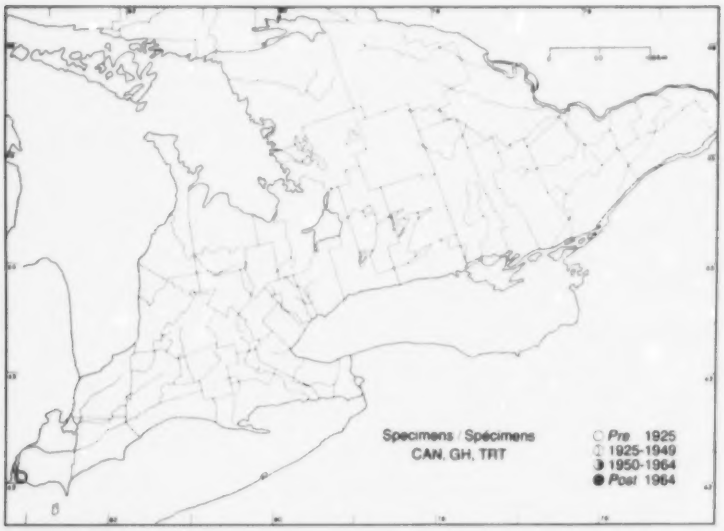
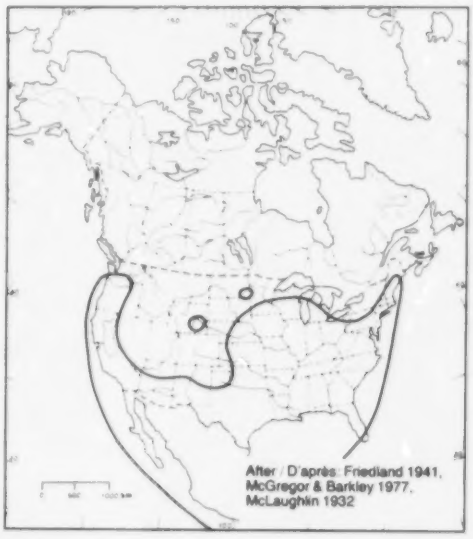
CYPERACEAE

***Hemicarpha micrantha* (Vahl) Britt.**
(*Scirpus micranthus* Vahl)

Hemicarpha





HABITAT: Shores.

STATUS: Rare in Canada. Endangered in New Jersey, North Carolina, and Ohio; threatened in Michigan and South Carolina; rare in Connecticut, Maine, New Hampshire, Pennsylvania, Virginia, and Wyoming.

NOTES: This plant has not been collected in the province since 1901.

HABITAT: Rivages.

SITUATION: Rare au Canada. Menacée d'extinction dans le New Jersey, en Caroline du Nord et en Ohio; menacée au Michigan et en Caroline du Sud; rare au Connecticut, au Maine, au New Hampshire, en Pennsylvanie, en Virginie et au Wyoming.

REMARQUES: Cette plante n'a pas été récoltée dans la province depuis 1901.

REFERENCES/SOURCES

Friedland, S. 1941. The American species of *Hemicarpha*. American Journal of Botany 23:855-861.

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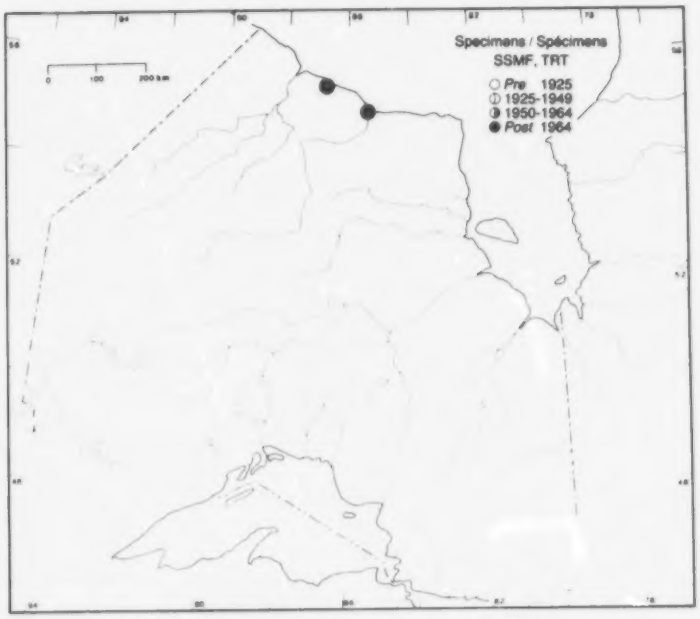
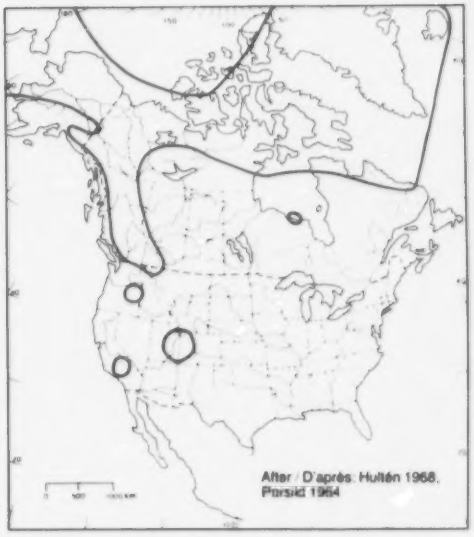
1982

CYPERACEAE

Kobresia

***Kobresia myosuroides* (Vill.) Fiori & Paol.**
(*K. bellardii* (All.) Degl. ex Loisel.)





HABITAT: Low shrub fens and willow thickets.

STATUS: Rare in California.

HABITAT: Marécages de buissons et fourrés de saules.

SITUATION: Rare en Californie.

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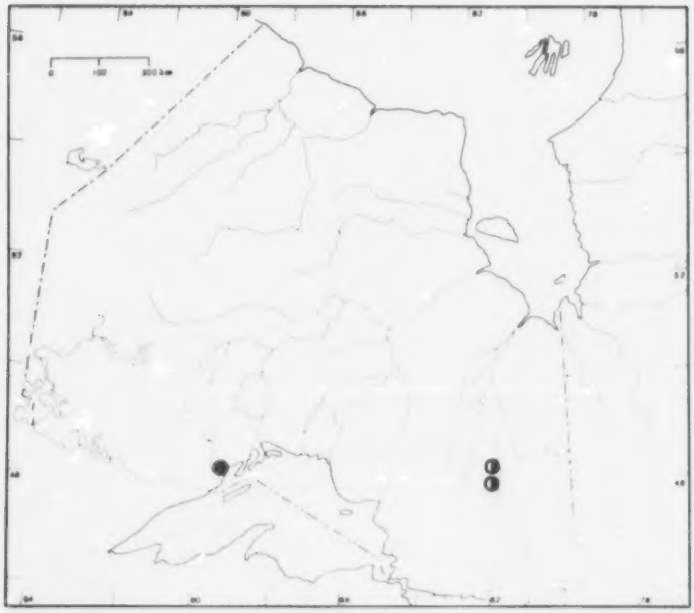
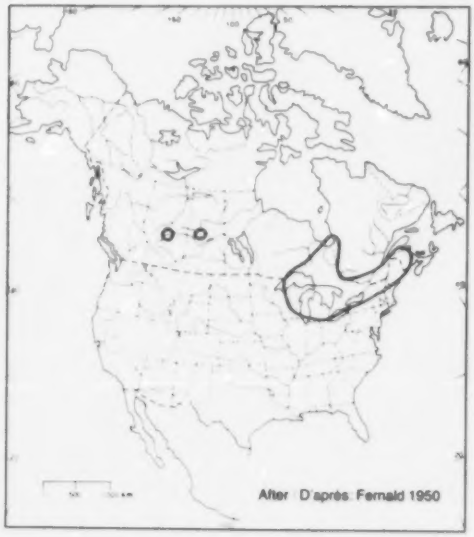
1982

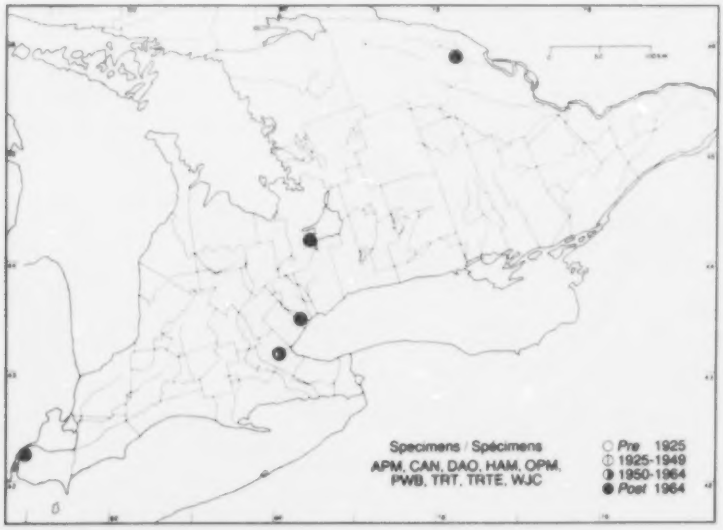
CYPERACEAE

***Scirpus clintonii* Gray**

Clinton's club-rush
Scirpe de Clinton







HABITAT: Prairie and open woods in the south; shoreline rock crevices in the north.

STATUS: Rare in Alberta, New Brunswick, Saskatchewan, and New York.

NOTES: Apparently rare wherever it occurs, however, it is easily overlooked in the field.

HABITAT: Prairies et forêts ouvertes dans le Sud; fissures de rochers sur les rivages dans le Nord.

SITUATION: Rare en Alberta, au Nouveau-Brunswick, en Saskatchewan et dans l'Etat de New York.

REMARQUES: Apparemment rare partout où il pousse, cependant, il est difficile à repérer sur le terrain.

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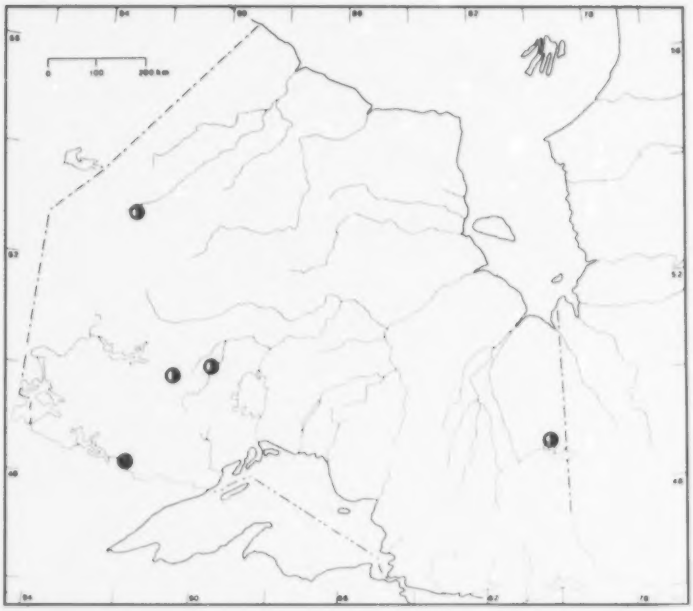
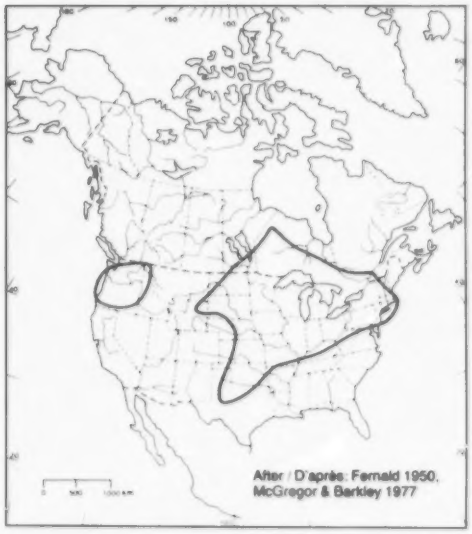
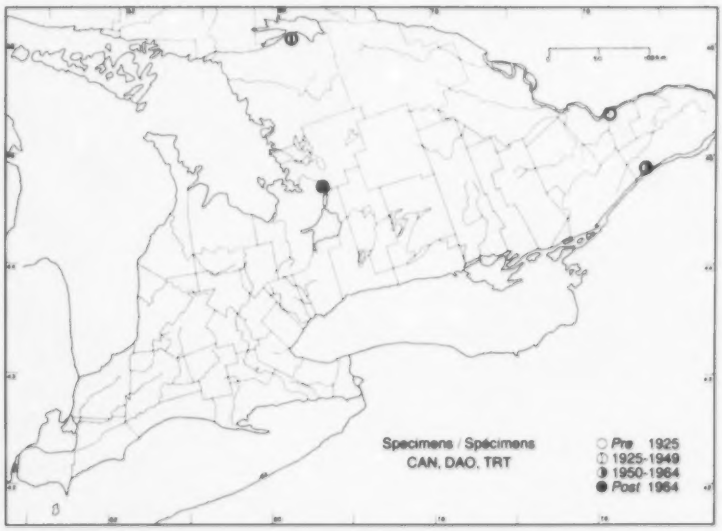
***Scirpus heterochaetus* Chase**
(*S. lacustris* L. var. *tenuiculmis* Sheld.)

Pale great bulrush
Scirpe à soies inégales







HABITAT: Marshes and shores.

STATUS: Rare in Pennsylvania.

NOTES: Similar to and often confused with the common and widespread *S. acutus* Muhl. and *S. validus* Vahl.

HABITAT: Marais et rivages.

SITUATION: Rare en Pennsylvanie.

REMARQUES: On le confond souvent avec le *S. acutus* Muhl. et le *S. validus* Vahl, espèces communes et répandues.

REFERENCES/SOURCES

Koyama, T. 1962. The genus *Scirpus* Linn. Some North American aphylloid species. Canadian Journal of Botany 40:913-937.

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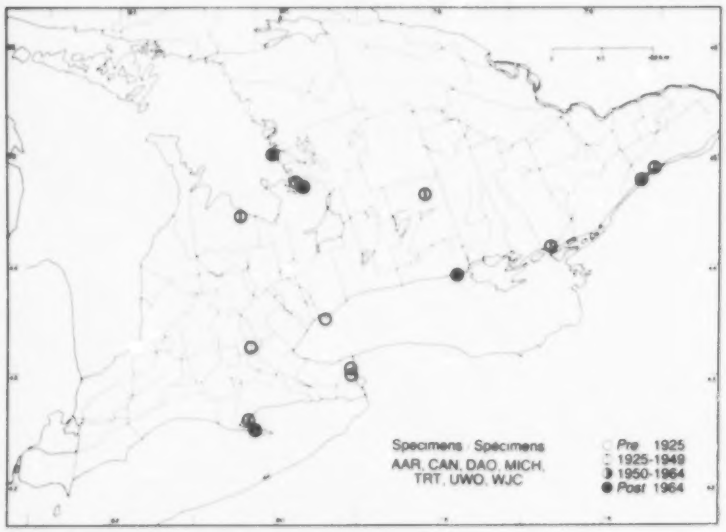
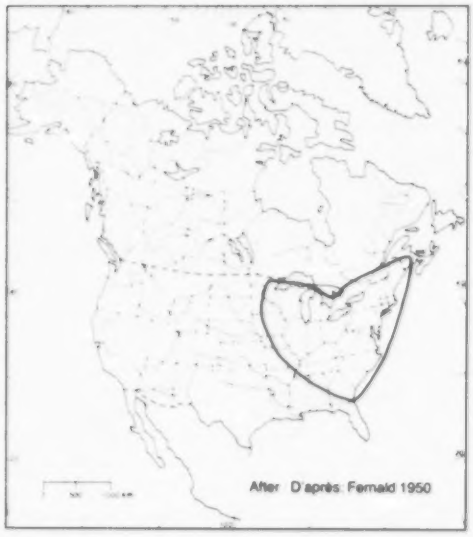
1982

CYPERACEAE

***Scirpus smithii* Gray**
(*S. juncoides* Roxb. var. *williamsii* (Fern.) T. Koyama,
S. purshianus Fern., *S. smithii* var. *williamsii* (Fern.) Beetle)

Smith's club-rush
Scirpe de Smith





HABITAT: Wet shores and beaches.

STATUS: Rare in New Brunswick. Endangered in Ohio; rare in Illinois and Vermont.

NOTES: Occurs rather widely in southern Ontario, however, it is restricted to beaches and other sandy habitats, chiefly along the Great Lakes system.

HABITAT: Rivages et plages humides.

SITUATION: Rare au Nouveau-Brunswick. Menacée d'extinction en Ohio; rare en Illinois et au Vermont.

REMARQUES: On le retrouve assez souvent dans le sud de l'Ontario, cependant, il se limite aux plages et aux autres habitats sablonneux, principalement le long du réseau des Grands Lacs.

REFERENCES/SOURCES

Koyama, T. 1962. The genus *Scirpus* Linn. Some North American aphylloid species. Canadian Journal of Botany 40:913-937.

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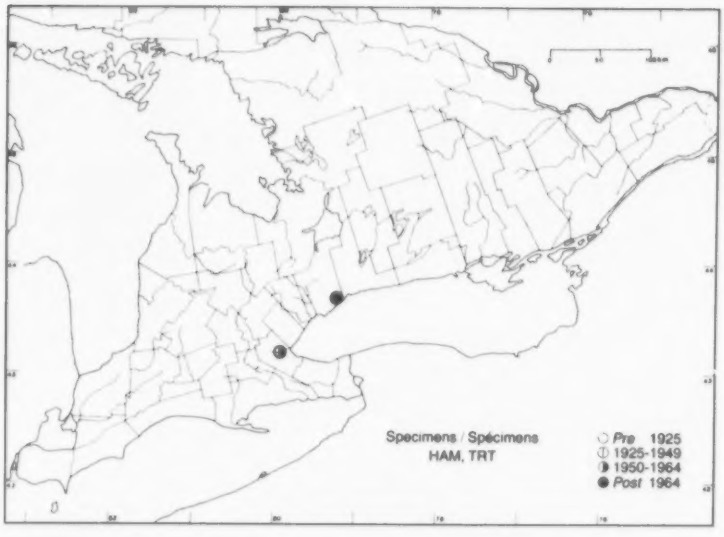
CYPERACEAE

***Scirpus verecundus* Fern.**

Bashful bulrush
Scirpe



HABITAT: Slopes in hardwood forests.

STATUS: Rare in Canada, Illinois, and Vermont.

HABITAT: Déclivités dans les forêts de bois durs.

SITUATION: Rare au Canada, en Illinois et au Vermont.

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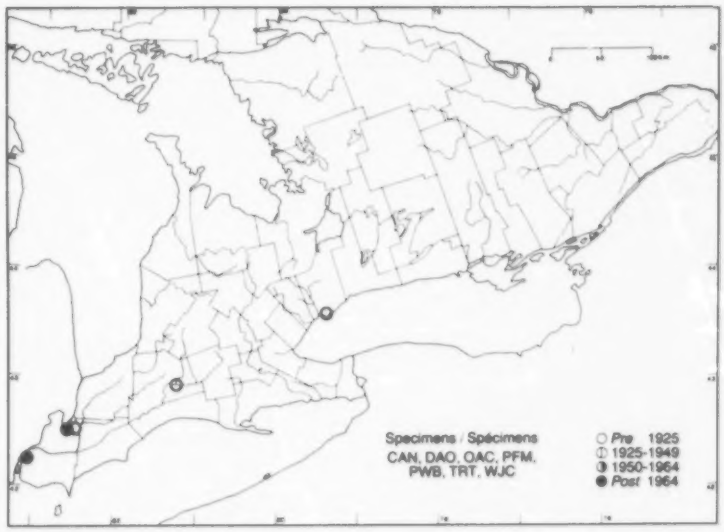
CYPERACEAE

***Scleria triglomerata* Michx.**

Tall nut-rush
Scléria



HABITAT: Moist prairie and thickets.

STATUS: Rare in Canada. Possibly extirpated in Connecticut; threatened in Ohio and Wisconsin; rare in Iowa, Massachusetts, and Minnesota.

HABITAT: Prairies humides et fourrés.

SITUATION: Rare au Canada. Peut-être déracinée du Connecticut; menacée en Ohio et au Wisconsin; rare en Iowa, au Massachusetts et au Minnesota.

REFERENCES/SOURCES

Fairey, J.E., III. 1972. The genus *Scleria* in North America. Ph.D. thesis. West Virginia University. 218 pp. University Microfilms, Ann Arbor, Michigan.

Soper, J.H. 1962. Some genera of restricted range in the Carolinian flora of Canada. Transactions of the Royal Canadian Institute 34:3-56.

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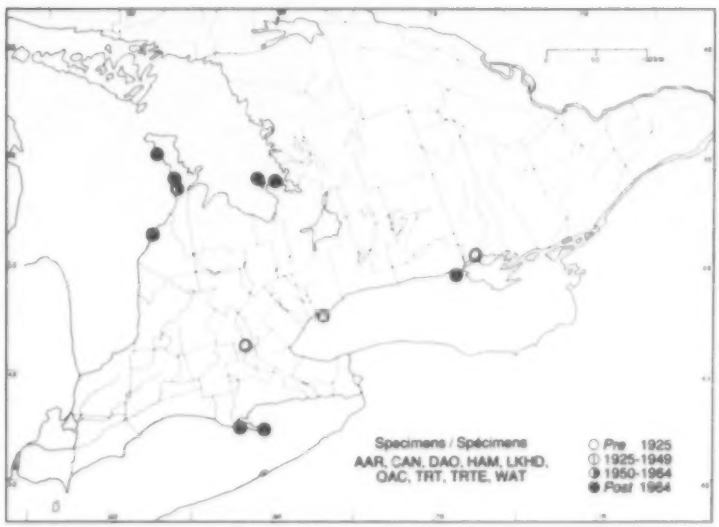
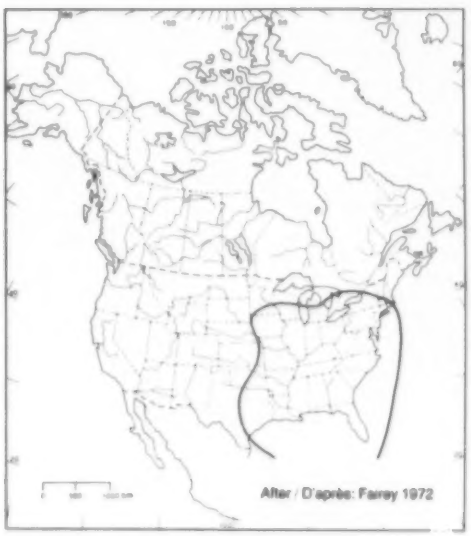
1982

CYPERACEAE

***Scleria verticillata* Muhl. ex Willd.**

Low nut-rush
Sclérie





HABITAT: Moist sandy meadows and shores.

STATUS: Rare in Canada. Endangered in Texas; threatened in Ohio and Wisconsin; rare in Illinois, Iowa, Minnesota, New Jersey, New York, and Tennessee.

NOTES: Occurs rather widely in southern Ontario, however, it is restricted to sandy shores of the Great Lakes.

HABITAT: Prés et rivages humides et sablonneux.

SITUATION: Rare au Canada. Menacée d'extinction au Texas; menacée en Ohio et au Wisconsin; rare en Illinois, en Iowa, au Minnesota, au New Jersey, dans l'Etat de New York et au Tennessee.

REMARQUES: On la retrouve assez souvent dans le sud de l'Ontario, cependant, elle se limite aux rivages sablonneux des Grands Lacs.

REFERENCES/SOURCES

Fairey, J.E., III. 1972. The genus *Scleria* in North America. Ph.D. thesis. West Virginia University. 218 pp. University Microfilms, Ann Arbor, Michigan.

Soper, J.H. 1962. Some genera of restricted range in the Carolinian flora of Canada. Transactions of the Royal Canadian Institute 34:3-56.

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1982

Rare Species of Liliaceae / Espèces rares de Liliaceae

Aletris farinosa
Allium cernuum
A. stellatum
Camassia scilloides
Chamaelirium luteum
Disporum lanuginosum
D. trachycarpum
Smilax rotundifolia
Uvularia perfoliata

Excluded Species of Liliaceae / Espèces de Liliaceae exclues

W/R — widespread or common/répandue. S/S — subsumed/subsumé. U/SI — unconfirmed/situation incertaine.
M/I — misidentified/identification erronée. T/O — taxonomic problem/obscure. I/A — introduced/allogène.

W/R *Erythronium albidum* Nutt.
U/SI *Lilium superbum* L.
T/O *L. canadense ssp. editorum* (Fern.) Wherry
W/R *Polygonatum biflorum* (Walt.) Ell.
W/R *P. canaliculatum* auct. = P. *biflorum*
T/O *Smilax echirrata* (Engelm. ex Kunth) S. Wats.
T/O *S. illinoiensis* Mangaly
T/O *S. lasioneuron* Hook.
W/R *Tofieldia pusilla* (Michx.) Pers.

Acknowledgements / Remerciements

We would like to acknowledge the help of Paul M. Catling, Biosystematics Research Institute, Ottawa, and Richard M. Adams II, Cornell University, Ithaca, New York.

Nous tenons à remercier MM. Paul M. Catling, Institut de recherches biosystématiques, Ottawa et Richard M. Adams II, Cornell University, Ithaca, New York, pour l'aide qu'ils nous ont fournie.

Contributors / Collaborateurs

David J. White, Robert V. Maher, & George W. Argus

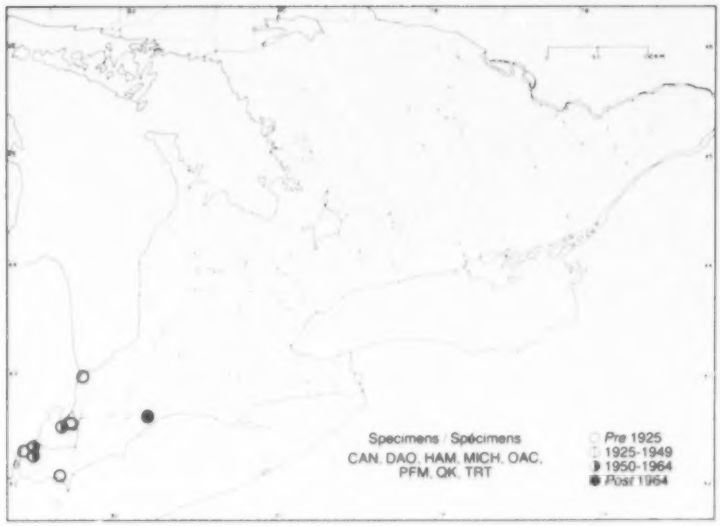
National Museum of Natural Sciences / Musée national des sciences naturelles

1982

LILIACEAE

***Aletris farinosa* L.**

Colicroot, Unicorn-root
Licorne vraie



HABITAT: Rich sandy woods and thickets, grassy openings in forests, meadows, and dry to mesic prairies.

STATUS: Rare in Canada. Possibly extirpated in Maine; rare in Ohio and Rhode Island.

NOTES: Possibly extirpated at the Sarnia and Leamington sites where it has not been collected for over 80 years. Seen in 1978 at Walpole Island, Ontario (P. Catling, pers. comm.).

HABITAT: Riches forêts et fourrés sablonneux, clairières herbeuses, prés, prairies xériques et mésoïques.

SITUATION: Rare au Canada. Peut-être déracinée du Maine; rare en Ohio et au Rhode Island.

REMARQUES: Peut-être déracinée des zones de Sarnia et de Leamington, où l'espèce n'a pas été récoltée depuis plus de quatre-vingts ans. Aperçue en 1978 à l'île Walpole, Ontario (P. Catling, comm. pers.).

REFERENCES/SOURCES

Soper, J.H. 1962. Some genera of restricted range in the Carolinian flora of Canada. Transactions of the Royal Canadian Institute 34:3-56.

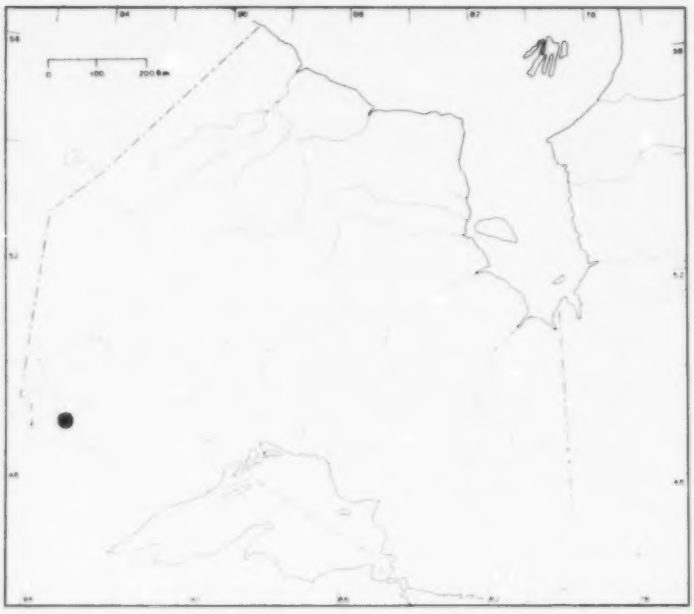
Stewart, W.G. 1979. *Aletris farinosa* L. in Elgin County, Ontario. Ontario Field Biologist 33:53-54.

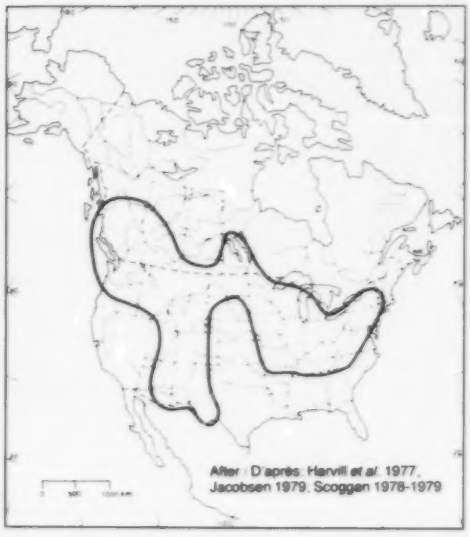
D.J. White, R.V. Maher, & G.W. Argus

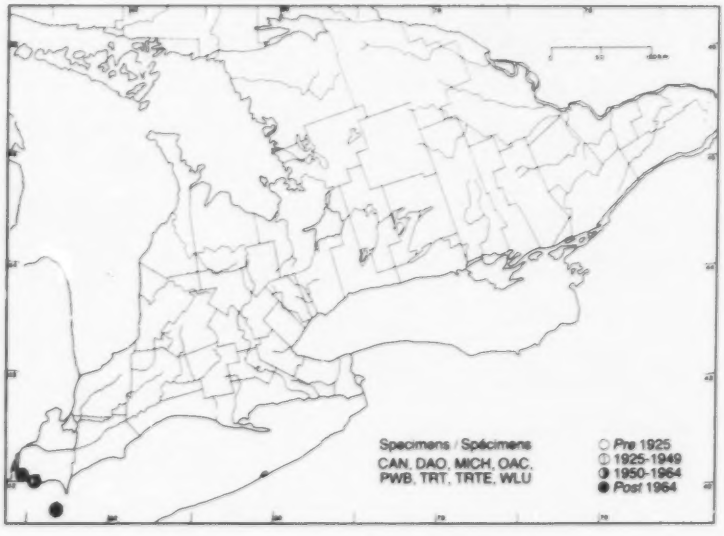
1982

***Allium cernuum* Roth**

Nodding wild onion
All







HABITAT: Dry woods, rocky banks, and prairies.

STATUS: Rare in Iowa.

NOTES: Locally common at Lighthouse Point, Point, Pelee Island (Burton 1979).

HABITAT: Berges rocheuses, prairies et bois secs.

SITUATION: Rare en Iowa.

REMARQUES: Nombreuses colonies à la pointe Lighthouse, dans l'île Pelée (Burton 1979).

REFERENCES/SOURCES

Burton, T.J. 1979. Preliminary life science report on Stone Road (Mill Point) Prairie, Pelee Island, Ontario. Ministry of Natural Resources, Lands & Parks Divisions, Chatham District. Unpublished/inédit. 9 pp.

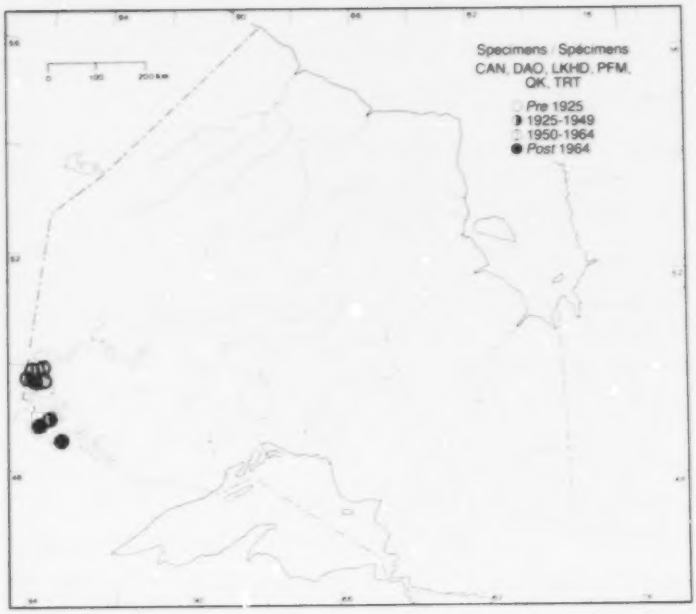
Jacobsen, T.D. 1979. Numerical analysis of variation between *Allium cernuum and Allium stellatum* (Liliaceae). Taxon 28:517-523.

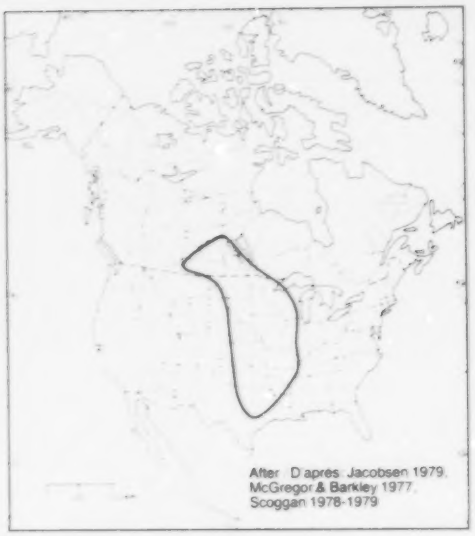
D.J. White, R.V. Maher, & G.W. Argus
1982

LILIACEAE

***Allium stellatum* Fraser**

Prairie wild onion
Ail





HABITAT: Rocky or sandy prairies, dry savannas, and hills.

HABITAT: Prairies rocheuses ou sablonneuses, savanes xériques et collines.

REFERENCES/SOURCES

Jacobsen, T.D. 1979. Numerical analysis of variation between *Allium cernuum* and *Allium stellatum* (Liliaceae). Taxon 28:517-523.

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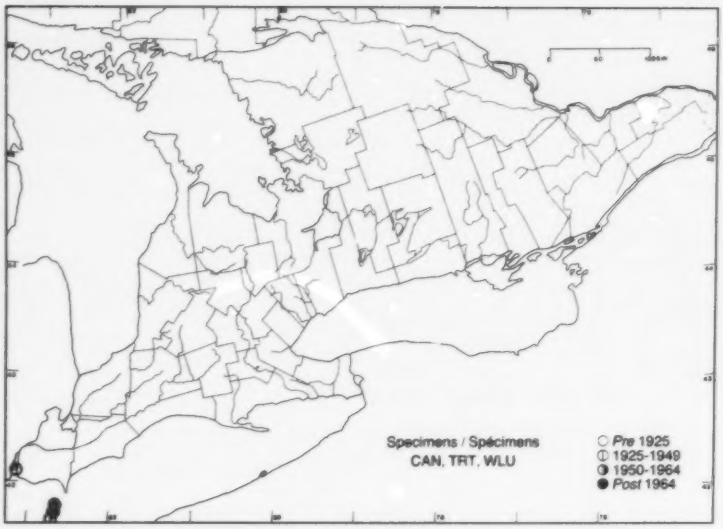
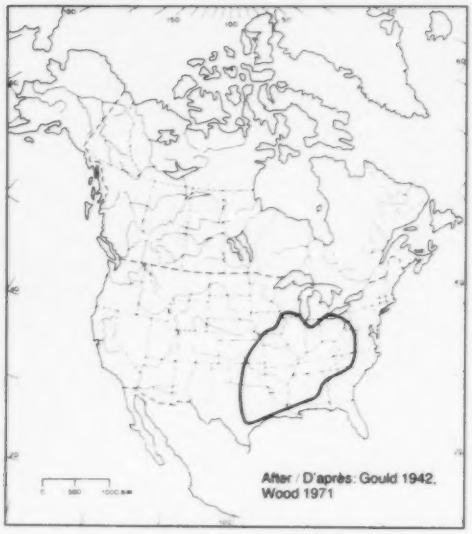
1982

LILIACEAE

***Camassia scilloides* (Raf.) Cory**

Wild hyacinth, Eastern camass
Camassie





HABITAT: Fields, meadows, and moist, open deciduous woods.

STATUS: Rare in Canada. Endangered in South Carolina and Wisconsin; threatened in Michigan; rare in Virginia.

NOTES: The population on Bois blanc Island, opposite Amherstburg, has not been collected since 1882 and probably has been extirpated.

HABITAT: Champs, prés et forêts décidues clairsemées et mésoïques.

SITUATION: Rare au Canada. Menacée d'extinction en Caroline du Sud et au Wisconsin; menacée au Michigan; rare en Virginie.

REMARQUES: La population de l'île Bois blanc, en face d'Amherstburg, dont on n'a rien récolté depuis 1882, est probablement déracinée.

REFERENCES/SOURCES

Campbell, C.A., & A.A. Reznicek. 1977. New vascular plant records on Pelee and East Sister Islands, Essex County, Ontario. Canadian Field-Naturalist 91:384-390.

Gould, F.W. 1942. A systematic treatment of the genus *Camassia* Lindl. American Midland Naturalist 28:712-742.

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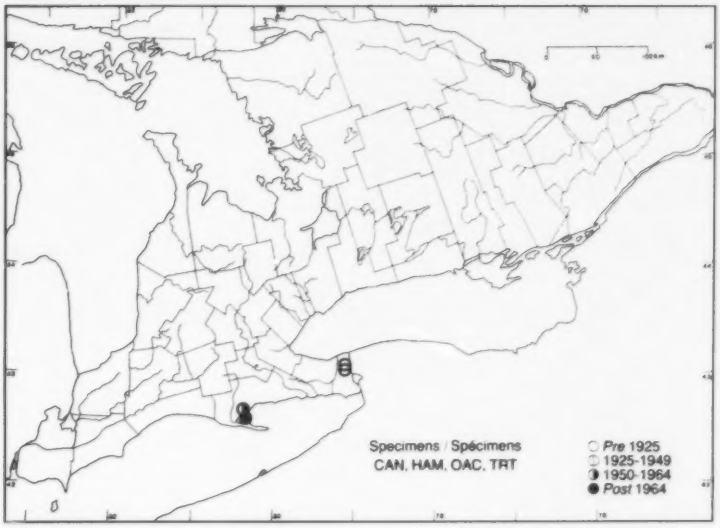
1982

LILIACEAE

***Chamaelirium luteum* (L.) Gray** — Devil's-bit, Fairy-wand



HABITAT: Meadows, thickets, and rich woods.
STATUS: Rare in Canada. Endangered in Indiana; rare in Arkansas, Illinois, Massachusetts, and New Jersey.

NOTES: It has probably been extirpated at Stamford and Queenstown Heights where it has not been collected for over 80 years.

HABITAT: Prés, fourrés et riches forêts.
SITUATION: Rare au Canada. Menacée en Indiana; rare en Arkansas, en Illinois, au Massachusetts et au New Jersey.
REMARQUES: Probablement déracinée de Stamford et de Queenston Heights, où l'espèce n'a pas été récoltée depuis plus de quatre-vingts ans.

REFERENCES/SOURCES

Segelken, J.G. 1929. The plant ecology of the Hazelwood Botanical Preserve. Ohio Biological Survey Bulletin 21, 4:221-269.

Soper, J.H. 1962. Some genera of restricted range in the Carolinian flora of Canada. Transactions of the Royal Canadian Institute 34:3-56.

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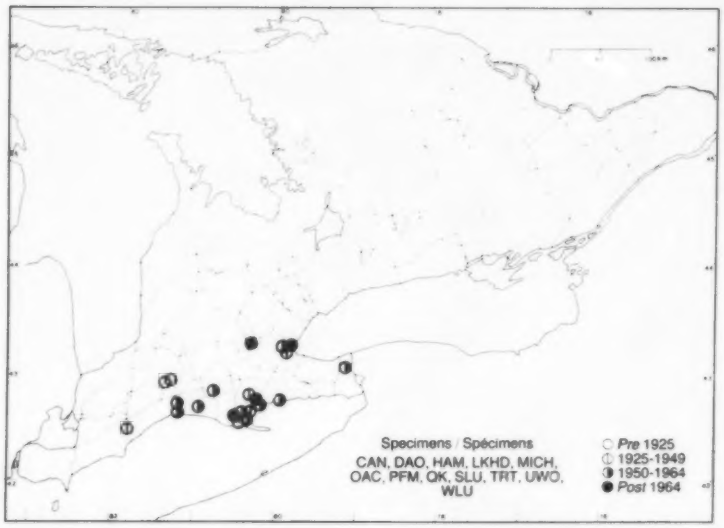
1982

LILIACEAE

***Disporum lanuginosum* (Michx.) Nicholson** — Yellow mandarin



HABITAT: Rich beech-maple-hemlock woods on brown forest soils and dry, sandy woods.

STATUS: Rare in Canada and Arkansas.

HABITAT: Riches forêts (hêtre-érable-pruche) au sol forestier brun et forêts sablonneuses xériques.

SITUATION: Rare au Canada et en Arkansas.

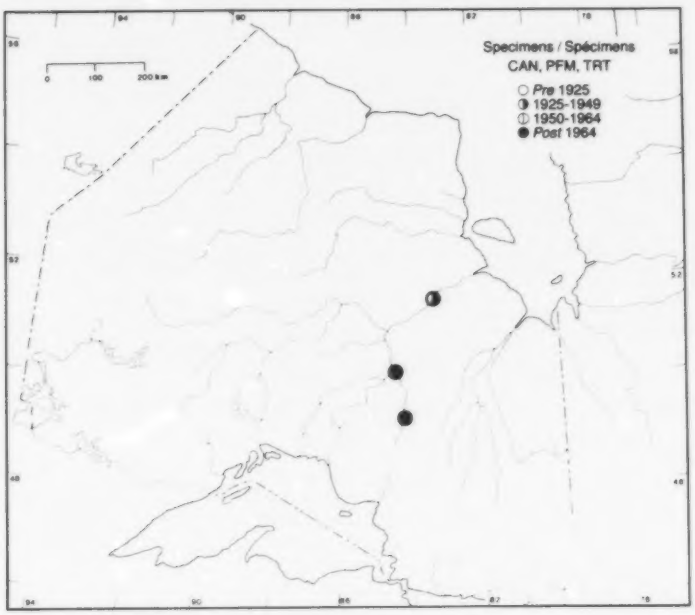
REFERENCES/SOURCES

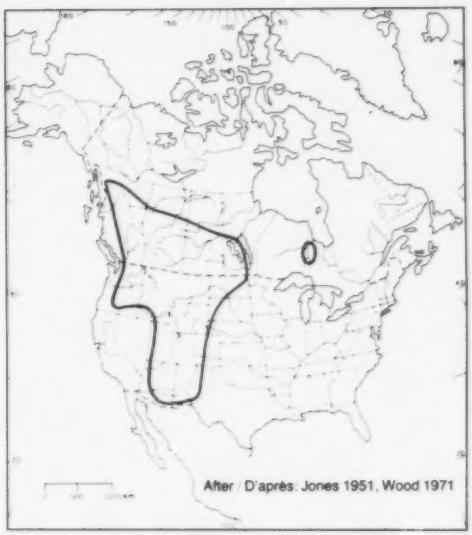
Jones, Q. 1951. A cytotaxonomic study of the genus *Disporum* in North America. Contributions from the Gray Herbarium 173:1-40.

D.J. White, R.V. Maher, & G.W. Argus
1982

LILIACEAE

***Disporum trachycarpum* (Wats.) Benth. & Hook.** Rough-fruited mandarin





HABITAT: Rich deciduous woods, and mixed woods and thickets on riverine bottomlands.

NOTES: The disjunction of the Ontario populations from the main range in western North America may be due to a lack of collecting in northwestern Ontario.

HABITAT: Riches forêts décidues, et forêts et fourrés mixtes sur des terres basses riveraines.

REMARQUES: L'absence de continuité entre les populations ontariennes et le principal territoire de distribution dans l'ouest nord-américain, provient peut-être du fait qu'on n'en a pas récolté dans le nord-ouest ontarien.

REFERENCES/SOURCES

Jones, Q. 1951. A cytotaxonomic study of the genus *Disporum* in North America. Contributions from the Gray Herbarium 173:1-40.

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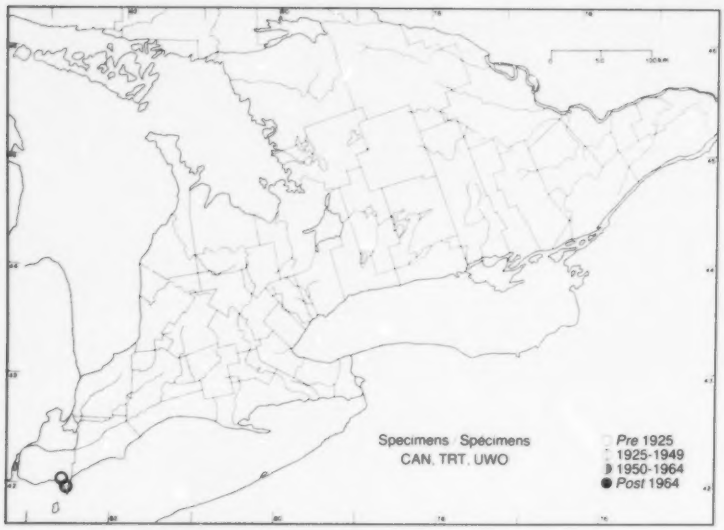
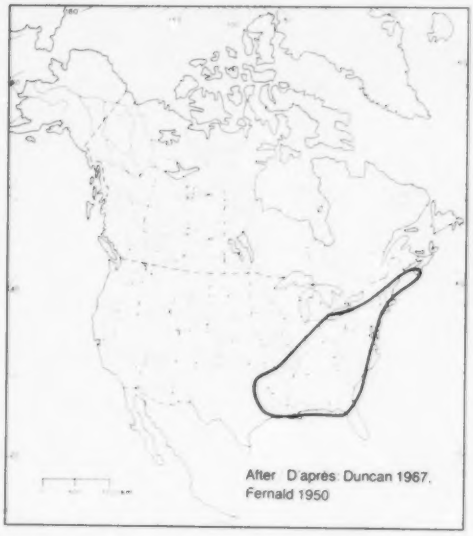
1982

LILIACEAE

***Smilax rotundifolia* L.**

Common greenbrier, catbrier
Smilax à feuille ronde





HABITAT: Moist to dry woods and thickets.

STATUS: Rare in Canada.

NOTES: Last collected in Ontario at Point Pelee and Leamington in 1882. It was not confirmed by Maycock *et al.* 1981; and is probably extirpated in the province.

HABITAT: Forêts et fourrés mésoîques et xériques.

SITUATION: Rare au Canada.

REMARQUES: Dernière récolte en Ontario: à la pointe Pelée et à Leamington, en 1882. Non confirmé par Maycock *et al.* 1981; probablement déracinée de la province.

REFERENCES/SOURCES

Duncan, W.H. 1967. Woody vines of the southeastern states. Sida 3:1-76.

Maycock, P.F., A.A. Reznicek, & D. Gregory. 1981. Flora of Point Pelee National Park, Essex County, southern Ontario. Unpublished/inédit.

Soper, J.H., & M.L. Heimburger. 1982. The shrubs of Ontario. Royal Ontario Museum. 528 pp.

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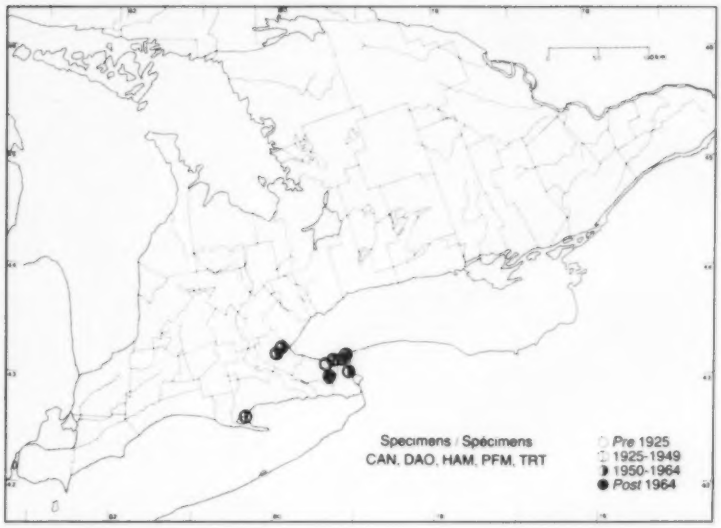
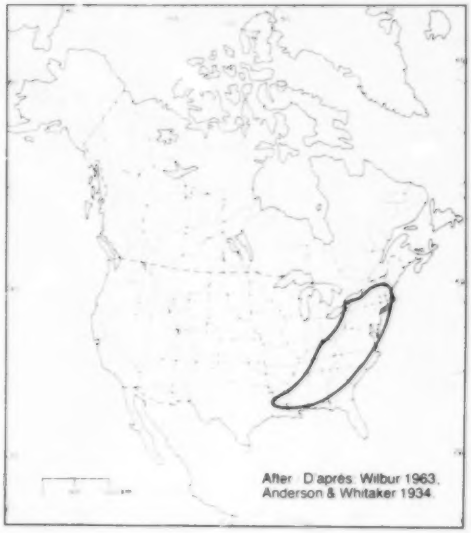
1982

LILIACEAE

***Uvularia perfoliata* L.**

Perfoliate bellwort
Uvulaire perfoliée





HABITAT: Rich, mesic hardwoods, dry oak-pine woods, and thickets.

STATUS: Rare in Canada and Vermont.

HABITAT: Riches forêts mésoîques de bois durs, forêts xériques (chêne-pin) et fourrés.

SITUATION: Rare au Canada et au Vermont.

REFERENCES/SOURCES

Anderson, E., & T.W. Whitaker. 1934. Speciation in *Uvularia*. Journal of the Arnold Arboretum 15:28-41.

Wilbur, R.L. 1963. A revision of the North genus *Uvularia* (Liliaceae). Rhodora 65:158-188.

Soper, J.H. 1952. Phytogeographic studies in Ontario. 1. The genus *Uvularia* in southern Ontario. Rhodora 54:57-67.

D.J. White, R.V. Maher, & G.W. Argus

1982

Rare Species of Orchidaceae / Espèces rares d'Orchidaceae

Aplectrum hyemale
Corallorhiza odontorhiza
Cypripedium calceolus var. *planipetalum*
C.candidum
Habenaria blephariglottis = Platanthera blephariglottis
H. ciliaris = P. ciliaris
H. grandiflora = P. grandiflora
H. leucophaea = P. leucophaea
H. orbiculata var. macrophylla = P. orbiculata var. macrophylla
H. psycodes var. grandiflora = P. grandiflora
Hammarbya paludosa = Malaxis paludosa
Isotria medeoloides
I. verticillata
Liparis liliifolia
Listera australis
L. borealis
Malaxis paludosa
Platanthera blephariglottis
P. ciliaris
P. grandiflora
P. leucophaea
P. orbiculata var. *macrophylla*
P. psycodes var. grandiflora = P. grandiflora
Spiranthes cernua var. ochroleuca = S. ochroleuca
S. lacera var. gracilis
S. magnicamporum
S. ochroleuca
Triphora trianthophora

Excluded Species of Orchidaceae / Espèces d'Orchidaceae exclues

W/R — widespread or common/répandue. **S/S** — subsumed/subsumé. **U/SI** — unconfirmed/situation incertaine. **M/I** — misidentified/identification erronée. **T/O** — taxonomic problem/obscure. **I/A** — introduced/allogène.

W/R *Cypripedium arietinum* R. Br.
W/R *C. passerinum* Richards.
W/R *Goodyera oblongifolia* Raf.
W/R *G. pubescens* (Willd.) R. Br.
W/R *Habenaria flava* (L.) R. Br. var. *herbiola* (R. Br.) Ames & Correll = *Platanthera flava* var. *herbiola*
W/R *H. unalascensis* (Spreng.) S. Wats. = *Piperia unalascensis*
W/R *Piperia unalascensis* (Spreng.) Rydb.
W/R *Platanthera flava* (L.) Lindl. var. *herbiola* (R. Br.) Luer
W/R *Spiranthes lucida* (H.H. Eat.) Ames.

Acknowledgements / Remerciements

We would like to acknowledge the help of H. Loney Dickson, Canadian Wildlife Service, Edmonton, and Daniel F. Brunton, Ottawa.

Nous tenons à remercier MM. H. Loney Dickson, du Service Canadien de la Faune à Edmonton, et Daniel F. Brunton, d'Ottawa, pour l'aide qu'ils nous ont fournie.

Contributors / Collaborateurs

David J. White, Robert V. Maher, Paul M. Catling, R. Emerson Whiting, Joyce M. Reddoch, Allan H. Reddoch, & John L. Riley

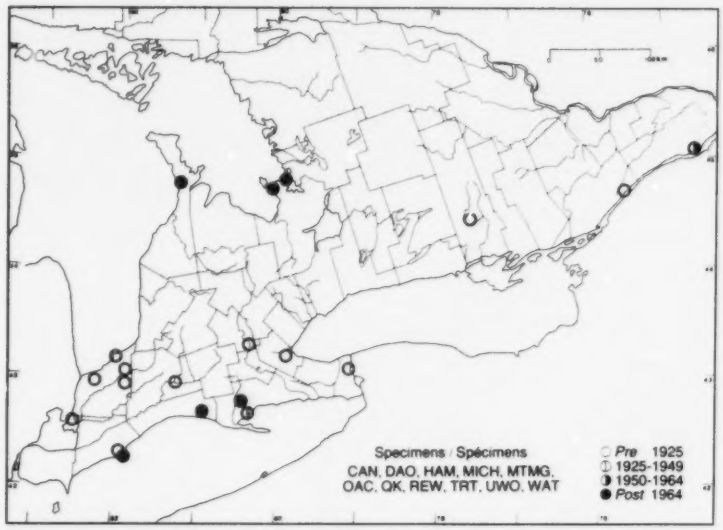
National Museum of Natural Sciences / Musée national des sciences naturelles

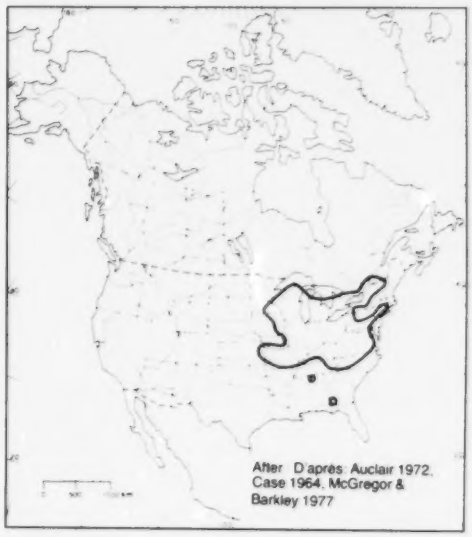
1982

ORCHIDACEAE

***Aplectrum hyemale* (Muhl. ex Willd.) Nutt.**

Putty-root
Aplectrum d'hiver





HABITAT: Moist deciduous woods.

STATUS: Rare in Canada. Possibly extirpated in Massachusetts; endangered in New Jersey; threatened in Connecticut; rare in Alabama, Arkansas, Iowa, Vermont, and West Virginia.

NOTES: The decreasing area of deciduous woodland habitat in southern Ontario has contributed to the decline of this species in the province.

HABITAT: Forêts humides de feuillus.

SITUATION: Rare au Canada.Peut-être déracinée du Massachusetts; menacée d'extinction au New Jersey; menacée au Connecticut; rare en Alabama, en Arkansas, en Iowa, au Vermont et en Virginie de l'ouest.

REMARQUES: La diminution des habitats de forêts de feuillus, dans le sud de l'Ontario, a contribué au déclin de l'espèce dans cette province.

REFERENCES/SOURCES

Auclair, A.N. 1972. Comparative ecology of the orchids *Aplectrum hyemale* and *Orchis spectabilis*. Bulletin of the Torrey Botanical Club 99:1-10.

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

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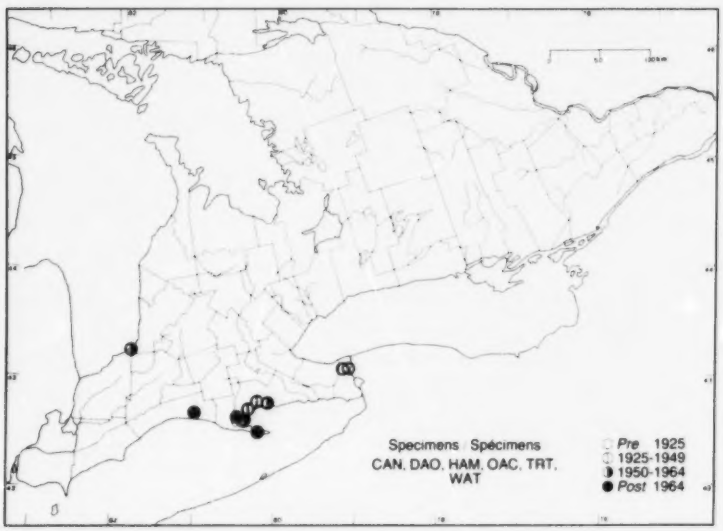
1982

ORCHIDACEAE

***Corallorhiza odontorhiza* (Willd.) Nutt.**

Autumn Coral-root
Corallorhize d'automne



HABITAT: Open, oak-pine woods or occasionally in open, red pine or white pine plantations in sandy areas.

STATUS: Rare in Canada. Threatened in Wisconsin; rare in Connecticut, Louisiana, Maine, Minnesota, and Vermont.

HABITAT: Forêts ouvertes de chênes / pins ou, de temps à autre, plantations ouvertes de pins rouges ou blancs, dans des zones sablonneuses.

SITUATION: Rare au Canada. Menacée au Wisconsin; rare au Connecticut, en Louisiane, au Maine, au Minnesota et au Vermont.

REFERENCES/SOURCES

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Catling, P.M., & R.E. Whiting. 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

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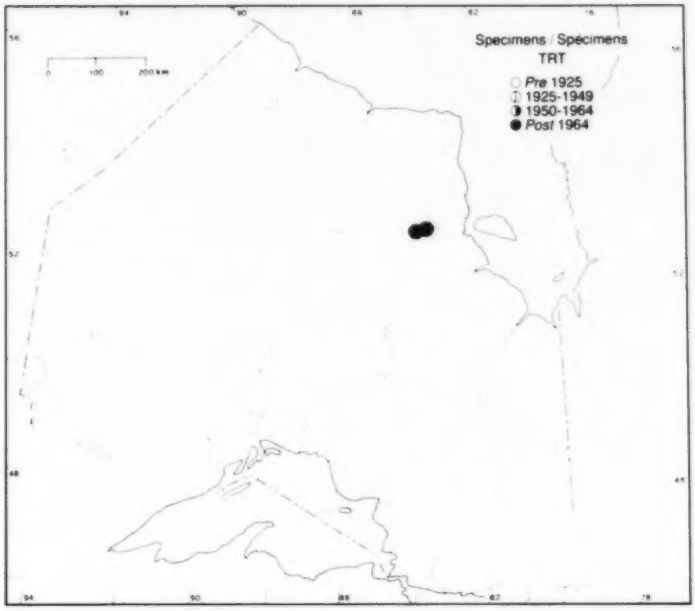
1982

ORCHIDACEAE

***Cypripedium calceolus* L.**
var. *planipetalum* (Fern.) Vict. & Rousseau

Flat-petalled yellow lady's-slipper
Cypripède planipétale



HABITAT: Open, white spruce forests on limestone.

NOTES: The taxonomic status of this variety requires further study.

HABITAT: Forêts ouvertes d'épinettes blanches sur du calcaire.

REMARQUES: Il est nécessaire d'étudier plus à fond la taxonomique de cette variété.

REFERENCES/SOURCES

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Riley, J.L. 1979. Some new and interesting vascular plant records from northern Ontario. Canadian Field-Naturalist 93:355-362.

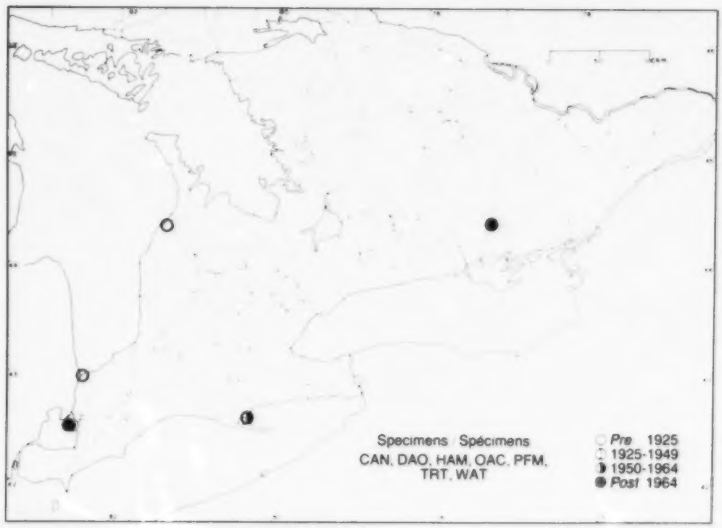
J.L. Riley, D.J. White, & P.M. Catling

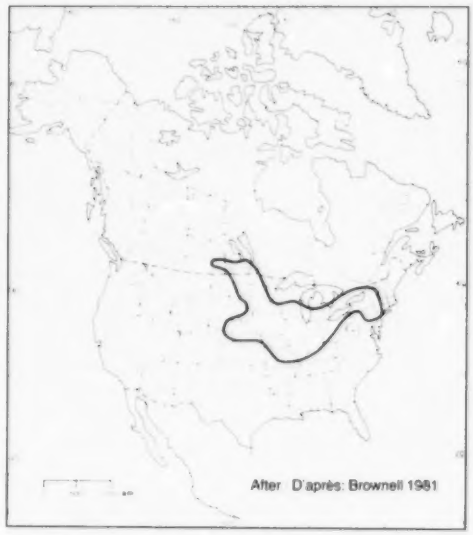
1992

ORCHIDACEAE

***Cypripedium candidum* Muhl. ex Willd.**

Small white lady's-slipper
Cypripède blanc





HABITAT: Dry to mesic prairies, marshes, marl fens, and wet grassy meadows.

STATUS: Endangered in Canada and possibly extirpated in Saskatchewan. Formerly listed as threatened in the United States (Ayensu & Defilipps 1978), but later removed from consideration (United States Fish & Wildlife Service 1980). Possibly extirpated in Pennsylvania; endangered in Ohio, South Dakota, and Wisconsin; threatened in Indiana, Kentucky, Michigan, and New York; rare in New Jersey, North Dakota, Minnesota, and Missouri. Possibly also extirpated in Missouri, New Jersey, and South Dakota (Brownell 1981).

NOTES: This species has declined drastically throughout its range due largely to changing patterns of land use (Brownell 1981). Encroaching shrubs and trees may have eliminated it at the site in Norfolk County, Ontario. It is protected under the Ontario Endangered Species Act and has been declared endangered in Canada by the Committee on the Status of Endangered Wildlife in Canada.

HABITAT: Prairies allant de sèches à mésiques, marais, marécages marneux et prés humides herbeux.

SITUATION: Menacée d'extinction au Canada et peut-être déracinée en Saskatchewan. Antérieurement inscrite sur la liste des espèces menacées aux Etats-Unis (Ayensu & Defilipps 1978), mais retirée par la suite (United States Fish & Wildlife Service 1980). Peut-être déracinée en Pennsylvanie; menacée d'extinction en Ohio, au Dakota du Sud et au Wisconsin; menacée en Indiana, au Kentucky, au Michigan et dans l'Etat de New York; rare au New Jersey, au Dakota du Nord, au Minnesota et au Missouri. Peut-être aussi déracinée du Missouri, du New Jersey et du Dakota du Sud (Brownell 1981).

REMARQUES: Cette espèce décline en nombre de façon dramatique dans tout son territoire, en grande partie par suite de changements dans l'utilisation des terres (Brownell 1981). Buissons et arbres, ayant empiété sur son habitat, l'ont peut-être déracinée du site du comté de Norfolk (Ontario). Elle est protégée en vertu de la Loi ontarienne sur les espèces menacées d'extinction et déclarée menacée d'extinction au Canada par le Comité sur le statut des espèces fauniques menacées d'extinction au Canada.

REFERENCES/SOURCES

Brownell, V.R. 1981. The small white lady's-slipper (*Cypripedium candidum* Muhl. ex Willd.) in Canada: a status report. Wildlife Branch, Ontario Ministry of Natural Resources, Toronto. 72 pp. Unpublished / inédit.

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Catling, P.M., & G. Knerer. 1980. Pollination of the small white lady's-slipper (*Cypripedium candidum*) in Lambton County, southern Ontario. Canadian Field-Naturalist 94:435-438.

Catling, P.M., & R.E. Whiting. 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

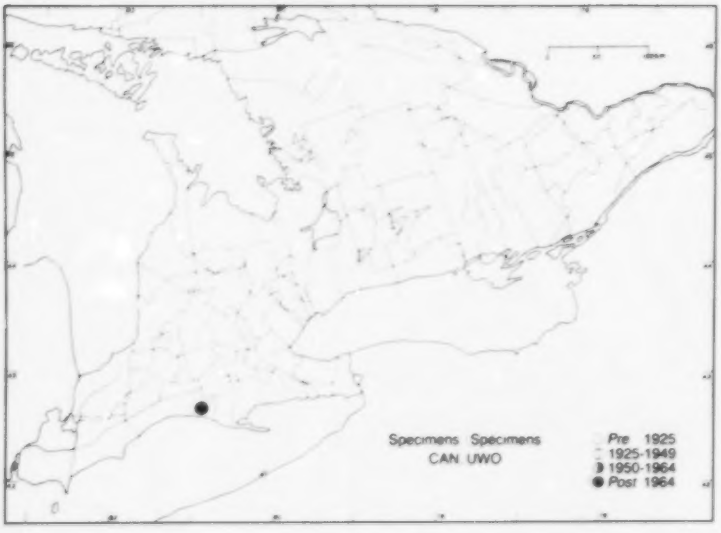
Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

1982

ORCHIDACEAE

***Isotria medeoloides* (Pursh) Raf.** Small whorled pogonia



HABITAT: Sandy, open deciduous woods.

STATUS: Endangered in Canada. Proposed as endangered in the United States. Possibly extirpated in Massachusetts and Vermont; endangered in Illinois, Michigan, New York, North Carolina, and Virginia; rare in Connecticut, Maine, New Hampshire, Pennsylvania, and Rhode Island.

NOTES: One of the rarest North American orchids, it was first discovered in Ontario in 1977. It is protected under the Ontario Endangered Species Act and has been declared endangered in Canada by the Committee on the Status of Endangered Wildlife in Canada.

HABITAT: Forêts humides de feuillus ou forêts mixtes.

SITUATION: Menacée d'extinction au Canada. Fait peut-être partie des espèces menacées d'extinction aux Etats-Unis. Peut-être déracinée au Massachusetts et au Vermont; menacée d'extinction en Illinois, au Michigan, dans l'Etat de New York, en Caroline du Nord et en Virginie; rare au Connecticut, au Maine, au New Hampshire, en Pennsylvanie et au Rhode Island.

REMARQUES: Une des orchidées les plus rares en Amérique du Nord, elle fut découverte en Ontario en 1977. Elle est protégée en vertu de la Loi ontarienne sur la protection des espèces menacées d'extinction et déclarée menacée d'extinction au Canada par le Comité sur le statut des espèces fauniques menacées d'extinction au Canada.

REFERENCES/SOURCES

Brownell, V.R. 1981. The small whorled pogonia (*Isotria medeoloides* (Pursh) Raf.): a status report. Wildlife Branch, Ontario Ministry of Natural Resources, Toronto. 30 pp. Unpublished/inédit.

Luer, C.A., 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Mehrhoff, L.A., III. 1980. Reproductive systems in the genus *Isotria* (Orchidaceae). Botanical Society of America. Miscellaneous Publication 158:72. (Abstract/Précis).

Mehrhoff, L.A., III. 1980. The distribution, status, and ecology of *Isotria medeoloides* (Pursh) Rafinesque (Orchidaceae). Botanical Society of America. Miscellaneous Publication 158:72. (Abstract/Précis).

Stewart, W.C. 1977. The smaller whorled pogonia, and orchid new to Canada. Ontario Field Biologist 31:57-58.

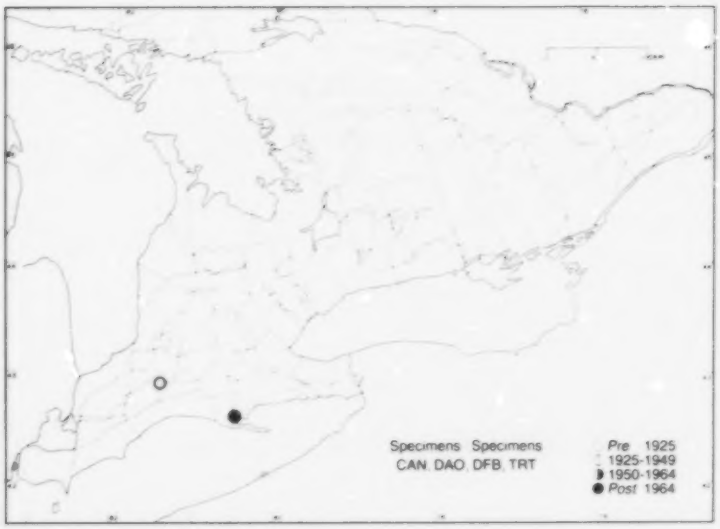
Stewart, W.G. 1978. *Isotria medeoloides*, the smaller whorled pogonia new to Canada. Rhodora 80:587-590.

D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

1982

ORCHIDACEAE

***Isotria verticillata* (Muhl. ex Willd.) Raf.** Whorled pogonia



HABITAT: Moist deciduous woods.

STATUS: Rare in Canada. Endangered in Texas; threatened in Indiana; rare in Alabama, Delaware, Illinois, Maine, Massachusetts, Michigan, Missouri, New Hampshire, Ohio, Rhode Island, and Vermont.

NOTES: This species has not been found at Komoka, Ontario, since 1879.

HABITAT: Forêts humides de feuillus.

SITUATION: Rare au Canada. Menacée d'extinction au Texas; menacée en Indiana, rare en Alabama, au Delaware, en Illinois, au Maine, au Massachusetts, au Michigan, au Missouri, au New Hampshire, en Ohio, au Rhode Island et au Vermont.

REMARQUES: On n'a pas vu cette espèce à Komoka, Ontario, depuis 1879.

REFERENCES/SOURCES

Case, F.W., Jr., 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Catling, P.M., & R.E. Whiting. 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Mehrhoff, L.A., III. 1980. Reproductive systems in the genus *Isotria* (Orchidaceae). Botanical Society of America. Miscellaneous Publication 158:72. (Abstract/Précis).

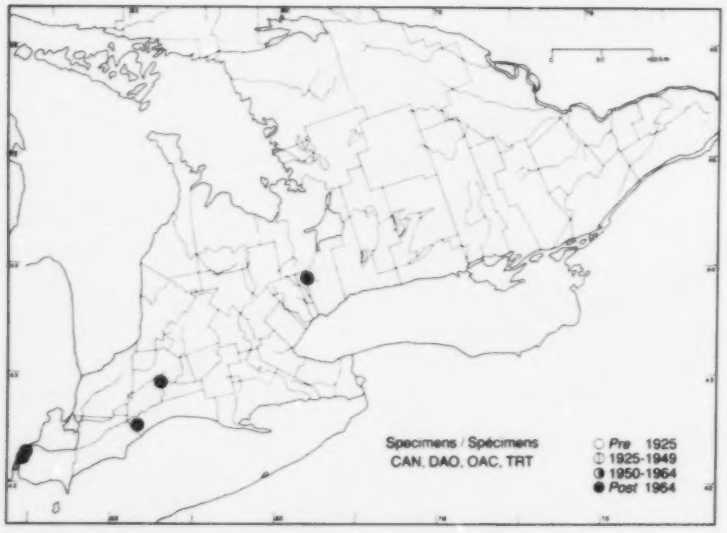
D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

1982

ORCHIDACEAE

Liparis lilifolia **(L.) Richard**

Lily-leaved twayblade
Liparis à feuilles de lis



HABITAT: Dry sandy sites in open mixed woods, pine plantations, and sumac thickets.

STATUS: Rare in Canada. Possibly extirpated in New Hampshire and Tennessee; rare in Delaware, New Jersey, and Rhode Island.

HABITAT: Zones sablonneuses sèches dans les forêts mixtes ouvertes, les plantations de pins et les fourrés de sumacs.

SITUATION: Rare au Canada. Peut-être déracinée du New Hampshire et du Tennessee; rare au Delaware, au New Jersey et au Rhode Island.

REFERENCES/SOURCES

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Catling, P.M., & R.E. Whiting. 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

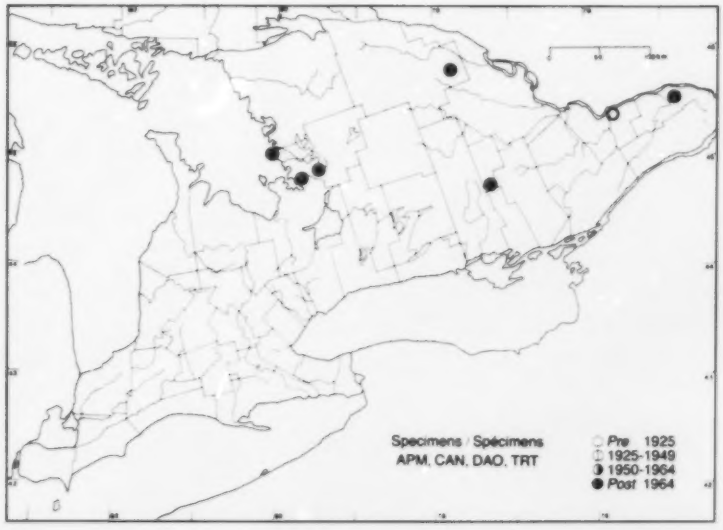
D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

1982

ORCHIDACEAE

***Listera australis* Lindl.**

Southern twayblade
Listère australe



HABITAT: In clearings in sphagnum bogs.

STATUS: Rare in Canada. Endangered in North Carolina; rare in Arkansas, Pennsylvania, Vermont, and Virginia.

NOTES: This plant has not been found in Mer Bleue, Ontario, since 1902.

HABITAT: Dans les clairières situées dans les marais de sphaignes.

SITUATION: Rare au Canada. Menacée d'extinction en Caroline du Nord; rare en Arkansas, en Pennsylvanie, au Vermont et en Virginie.

REMARQUES: On n'a pas vu cette plante à la Mer Bleue, Ontario, depuis 1902.

REFERENCES/SOURCES

Cody, W.J., & D. Munro. 1980. The genus *Listera* (Twayblades) in New Brunswick. Canadian Field-Naturalist 94:443-446.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Whiting, R.E., & R.S.W. Bobbette. 1974. The orchid *Listera australis* rediscovered in Ontario. Canadian Field-Naturalist 88:345-347.

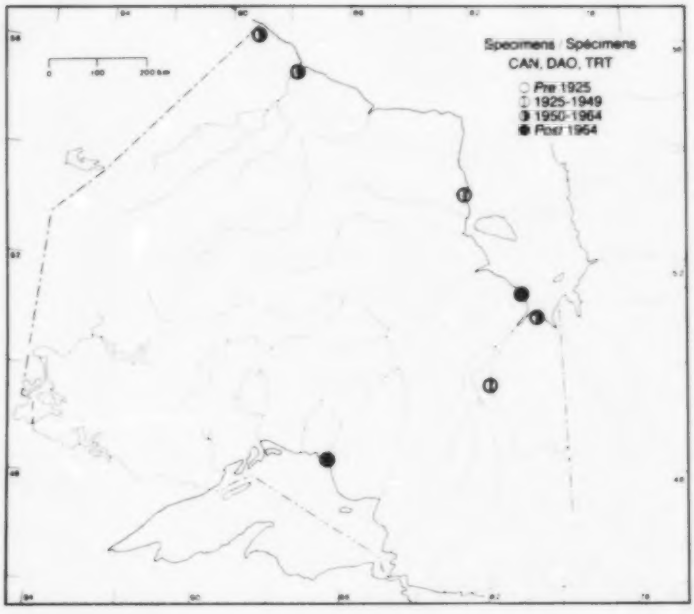
P.M. Catling, D.J. White, R.V. Maher, & R.E. Whiting

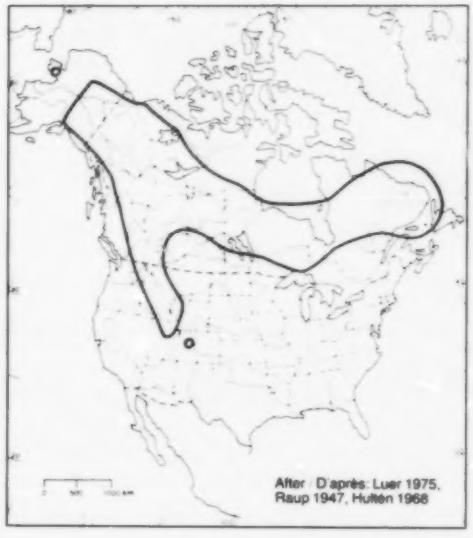
1982

ORCHIDACEAE

***Listera borealis* Morong**

Northern twayblade
Listère boréale





HABITAT: Cool, mossy woods and in thickets along river and lake shores.

STATUS: Rare in Newfoundland and Saskatchewan. Endangered in Colorado and rare in Washington.

HABITAT: Forêts moussues et fraîches et fourrés le long des rivières et des lacs.

SITUATION: Rare à Terre-Neuve et en Saskatchewan. Menacée d'extinction au Colorado et rare dans l'Etat de Washington.

REFERENCES/SOURCES

Case, F.W., Jr. 1965. Discovery of the northern twayblade (*Listera borealis*) in the Lake Superior region of Ontario. Michigan Botanist 4:118-121.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

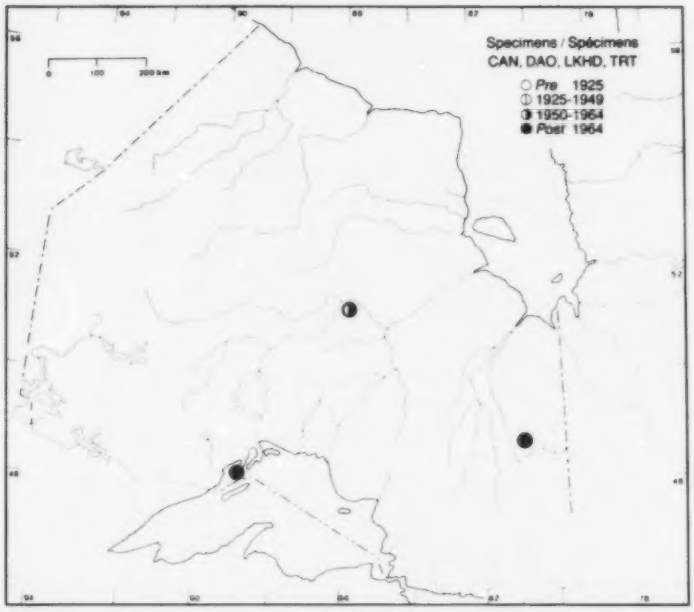
P.M. Catling, D.J. White, R.V. Maher, & R.E. Whiting

1982

ORCHIDACEAE

***Malaxis paludosa* (L.) Sw.**
(*Hammarbya paludosa* (L.) (Kuntze)

Bog adder's-mouth
Malaxis des marais



HABITAT: Sphagnum bogs and muskegs.

STATUS: Rare throughout its North American range.

NOTES: Easily overlooked because of its small size and habit of growing in deep sphagnum moss.

HABITAT: Marais et tourbières de sphaignes.

SITUATION: Rare dans toute l'étendue de son territoire en Amérique du Nord.

REMARQUES: Passe souvent inaperçue à cause de sa petite taille et de son habitat, soit la mousse profonde de sphaigne.

REFERENCES/SOURCES

Catling, P.M., & R.E. Whiting. 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

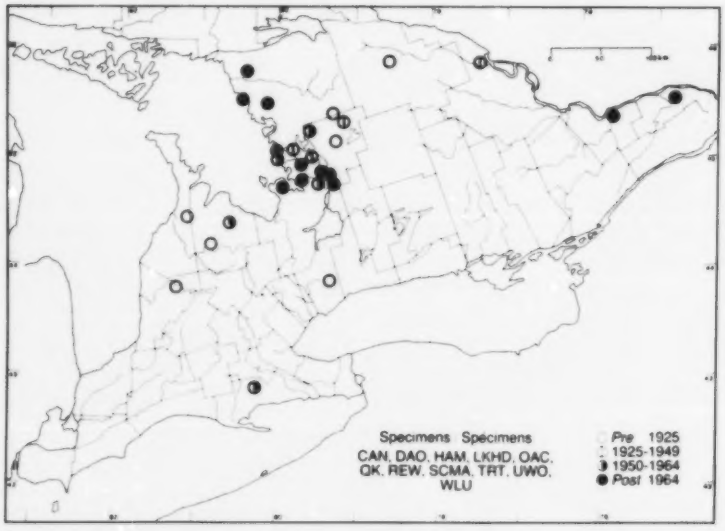
D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

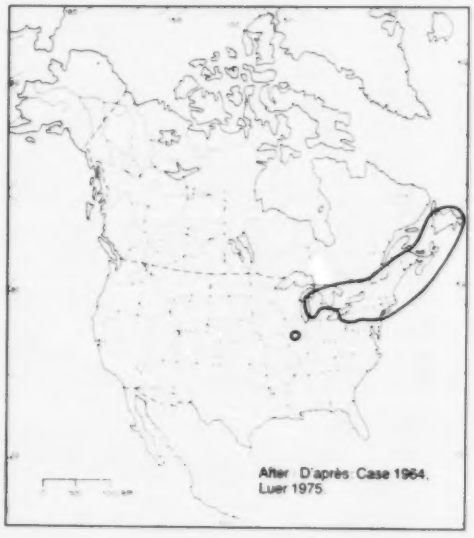
1982

ORCHIDACEAE

***Platanthera blephariglottis* (Willd.) Lindl.**
(*Habenaria blephariglottis* (Willd.) Hook.)

White fringed-orchid
Platanthère à gorge





HABITAT: Open sphagnum bogs.

STATUS: Rare in Quebec. Possibly extirpated in Illinois; rare in Connecticut, Delaware, and Ohio.

HABITAT: Marais de sphaignes ouverts.

SITUATION: Rare au Québec. Peut-être déracinée de l'Illinois; rare au Connecticut, au Delaware et en Ohio.

REFERENCES/SOURCES

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Smith, G.R., & G.E. Snow. 1976. Pollination ecology of *Platanthera* (*Habenaria*) *ciliaris* and *P. blephariglottis* (Orchidaceae). Botanical Gazette 137:133-140.

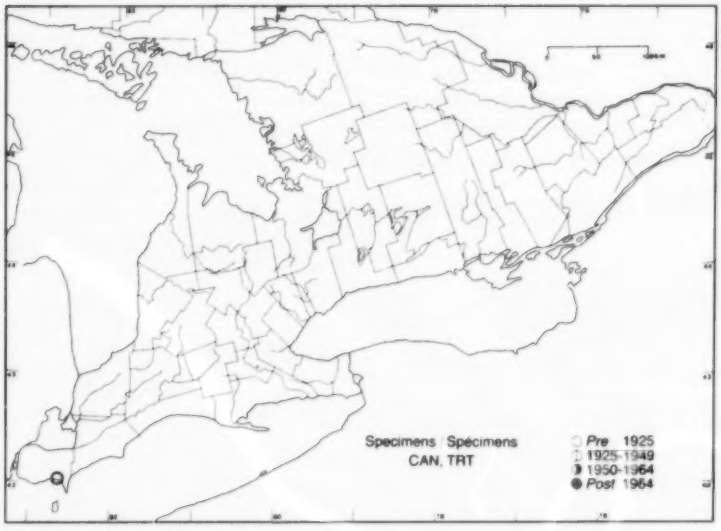
D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

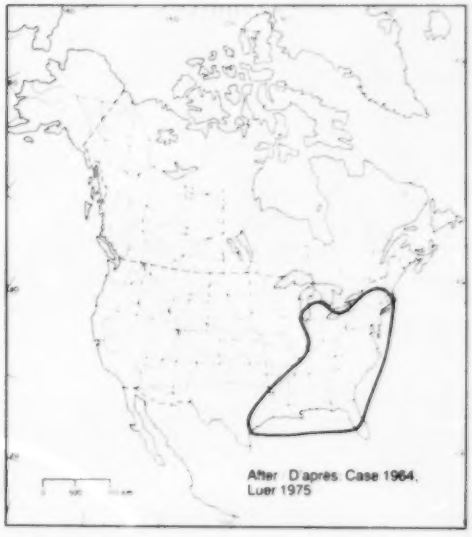
1982

ORCHIDACEAE

***Platanthera ciliaris* (L.) Lindl.**
(*Habenaria ciliaris* (L.) R. Br.)

Yellow fringed-orchid
Platanthère





HABITAT: Moist sandy woods and open bogs.

STATUS: Possibly extirpated in Canada. Possibly extirpated in Massachusetts and New Hampshire; endangered in New Jersey and Rhode Island; threatened in Indiana, Michigan and Ohio; rare in Arkansas, Connecticut, Delaware, Illinois, and Missouri.

NOTES: Since it is a showy species not easily overlooked, and has not been seen in Ontario since 1901, it is thought to be extirpated in the province.

HABITAT: Forêts humides sablonneuses et marais ouverts.

SITUATION: Peut-être déracinée du Canada. Peut-être déracinée du Massachusetts et du New Hampshire; menacée d'extinction au New Jersey et au Rhode Island; menacée en Indiana, au Michigan et en Ohio; rare en Arkansas, au Connecticut, au Delaware, en Illinois et au Missouri.

REMARQUES: N'a pas été trouvée en Ontario depuis 1901. Puisqu'il s'agit d'une espèce voyante et facile à reconnaître, on croit qu'elle est déracinée dans cette province.

REFERENCES/SOURCES

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Catling, P.M., & R.E. Whiting, 1976. Orchids, fragile and endangered. Ontario Naturalist 16(3):20-30.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Smith, G.R., & G.E. Snow. 1976. Pollination ecology of *Platanthera* (*Habenaria*) *ciliaris* and *P. blephariglottis* (Orchidaceae). Botanical Gazette 137:133-140.

D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

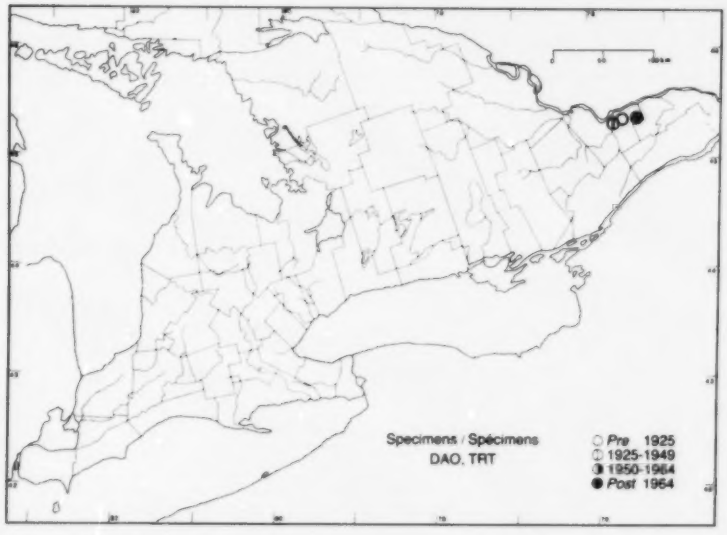
1982

ORCHIDACEAE

***Platanthera grandiflora* (Bigel.) Lindl.**

(*Habenaria grandiflora* (Bigel.) Torr., *H. psycodes* (L.) Spreng. var. *grandiflora* (Bigel.) Gray, *P. psycodes* (L.) Lindl. var. *grandiflora* (Bigel.) Torr.)

Large purple fringed-orchid
Platanthère grandiflore



HABITAT: Damp meadows and open woods.

STATUS: Rare in Delaware, Ohio, and Virginia.

NOTES: Easily overlooked because of its similarity to the common and widespread *P. psycodes*. The two species are sometimes found growing close together.

HABITAT: Prés humides et forêts ouvertes.

SITUATION: Rare au Delaware, en Ohio et en Virginie.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec *P. psycodes*, espèce commune et répandue. On retrouve souvent ces deux espèces ensemble.

REFERENCES/SOURCES

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Reddoch, J. 1976. Large purple fringed-orchid: a new-old species. Trail & Landscape 10:130-135.

Stoutamire, W.P. 1974. Relationships of the purple-fringed orchids *Platanthera psycodes* and *P. grandiflora*. Brittonia 26:42-58.

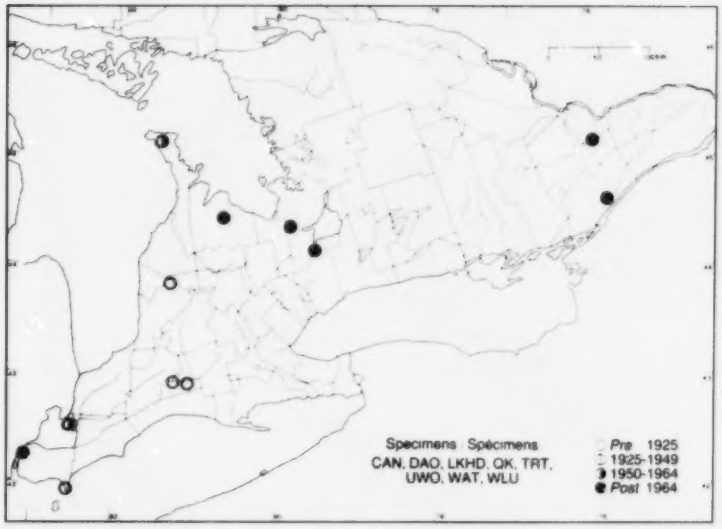
P.M. Catling, R.E. Whiting, D.J. White, J.M. Reddoch, & A.H. Reddoch

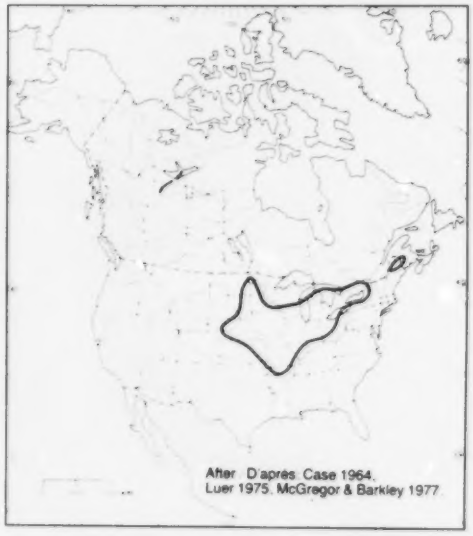
1982

ORCHIDACEAE

***Platanthera leucophaea* (Nutt.) Lindl.**
(*Habenaria leucophaea* (Nutt.) Gray)

Prairie white fringed-orchid
Platanthère blanchâtre





HABITAT: Fens, wet meadows, marshes, and prairies.

STATUS: Rare in Canada. Under review as threatened in the United States. Possibly extirpated in New York and Pennsylvania; endangered in Indiana, South Dakota, and Wisconsin; threatened in Illinois and Michigan; rare in Arkansas, Kansas, Maine, North Dakota, and Ohio.

HABITAT: Marécages, prés humides, marais et prairies.

SITUATION: Rare au Canada. Actuellement à l'étude, pourrait faire partie des espèces menacées aux Etats-Unis. Peut-être déracinée de l'Etat de New York et de la Pennsylvanie; menacée d'extinction en Indiana, dans le Dakota du Sud et au Wisconsin; menacée en Illinois et au Michigan; rare en Arkansas, au Kansas, au Maine, dans le Dakota du Nord et en Ohio.

REFERENCES/SOURCES

Case, F.W., Jr. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science. Bulletin 48. 147 pp.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

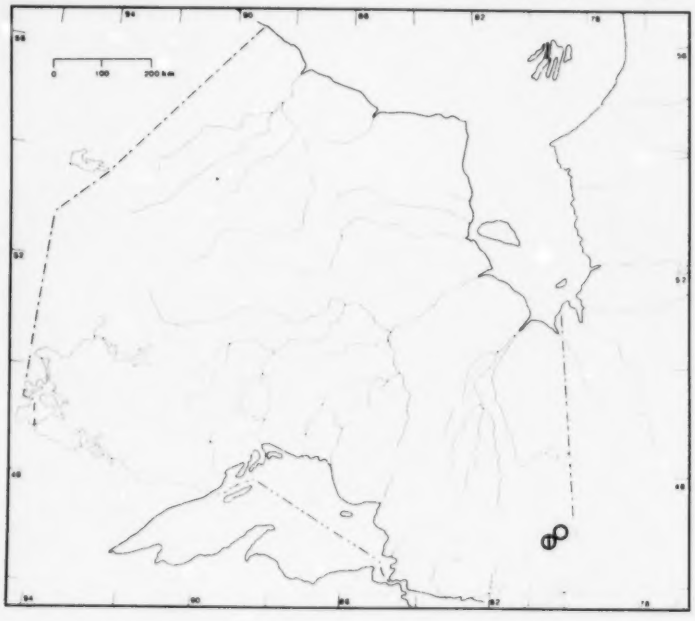
Reddoch, J. 1977. Prairie white fringed-orchid, a new orchid for the Ottawa area. Trail & Landscape 11:16-19.

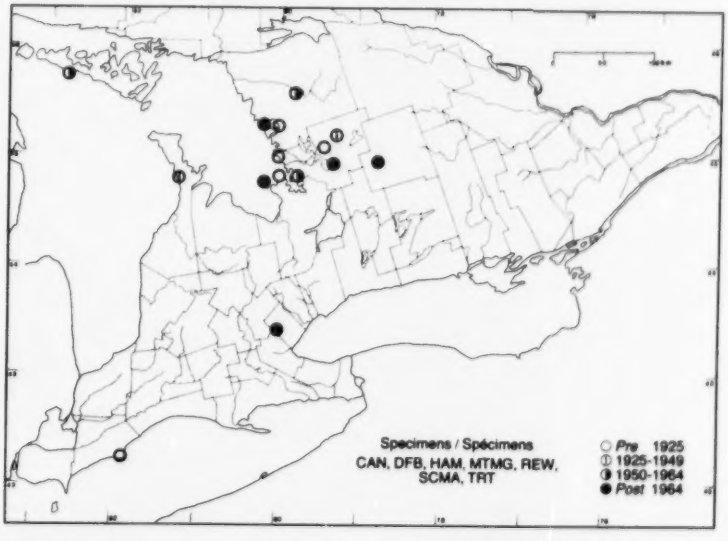
D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

1982

***Platanthera orbiculata* (Pursh) Lindl.**
var. *macrophylla* (Goldie) Luer
(Habenaria orbiculata (Pursh) Torr. var. macrophylla (Goldie) Boivin)

Large round-leaved orchid
Platanthère à grandes feuilles





HABITAT: Moist mixed woods.

STATUS: Rare in New Brunswick, Connecticut, and Rhode Island.

NOTES: Very few plants known at most localities.

HABITAT: Forêts mixtes humides.

SITUATION: Rare au Nouveau-Brunswick, au Connecticut et au Rhode Island.

REMARQUES: On trouve très peu de plantes dans la plupart des emplacements.

REFERENCES/SOURCES

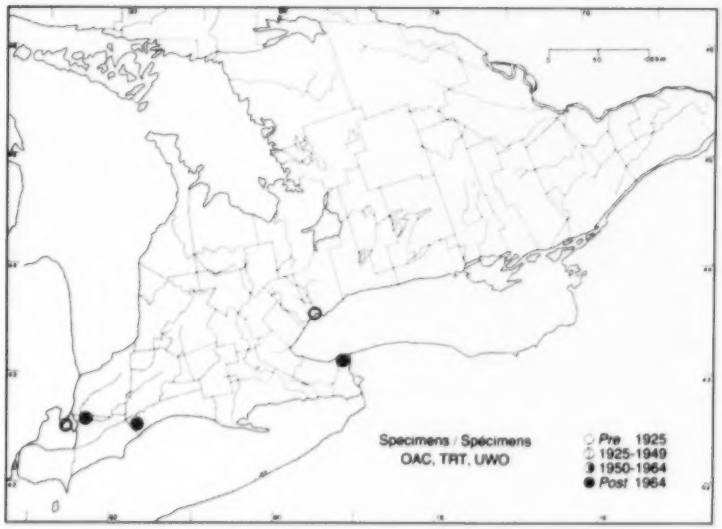
Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

J.M. Reddoch, A.H. Reddoch, P.M. Catling, R.E. Whiting, & D.J. White

ORCHIDACEAE

***Spiranthes lacera* Raf. var. *gracilis* (Bigel.) Luer**

Southern slender ladies'-tresses
Spiranthe



HABITAT: Roadsides and grassy meadows.

STATUS: Rare in Canada and Ohio.

NOTES: Easily overlooked because of its similarity to the common and widespread *S. lacera* var. *lacera*. The var. *lacera*, however, flowers late July to early August, while var. *gracilis* flowers late August through September.

HABITAT: Le long des routes et dans les prés herbeux.

SITUATION: Rare au Canada et en Ohio.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec *S. lacera* var. *lacera*, espèce commune et répandue. Cependant, var. *lacera* fleurit de la fin juillet au début d'août, tandis que var. *gracilis* fleurit de la fin août à la fin septembre.

REFERENCES/SOURCES

Catling, P.M. 1980. Systematics of *Spiranthes* L.M.C. Richard in northeastern North America. Ph.D. thesis. University of Toronto. 550 pp. Unpublished/inédit.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

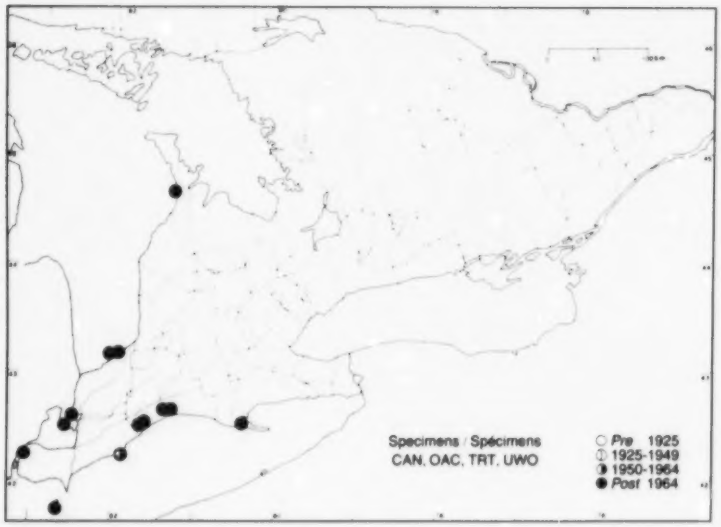
P.M. Catling, R.E. Whiting, D.J. White, & R.V. Maher

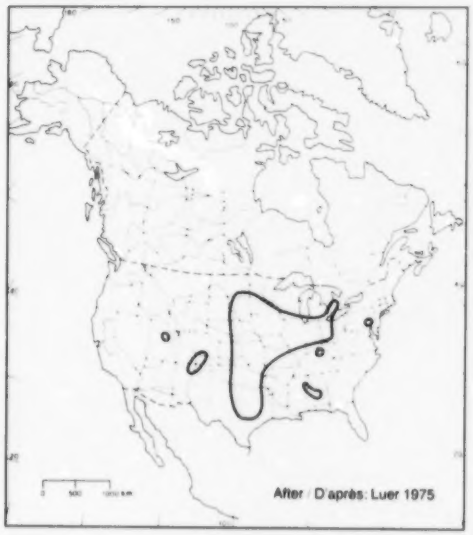
1982

ORCHIDACEAE

***Spiranthes magnicamporum* Sheviak**

Great Plains ladies'-tresses
Spiranthe





HABITAT: Sandy meadows, shores, and roadsides.

STATUS: Rare in Canada. Threatened in Ohio.

NOTES: Easily overlooked because of its similarity to the common and widespread *S. cernua* (L.) Richard.

HABITAT: Prés sablonneux, rivages et le long des routes.

SITUATION: Rare au Canada. Menacée en Ohio.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec *S. cernua* (L.) Richard, espèce commune et répandue.

REFERENCES/SOURCES

Catling, P.M. 1976. *Spiranthes magnicamporum* Sheviak, an addition to the orchids of Canada. Canadian Field-Naturalist 90:467-470.

Catling, P.M. 1980. Systematics of *Spiranthes* L.M.C. Richard in northeastern North America. Ph.D. thesis. University of Toronto. 550 pp. Unpublished/inédit.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Sheviak, C.J. 1976. Biosystematic study of the *Spiranthes cernua* complex with emphasis on the prairies. Ph.D. thesis. Harvard University. Unpublished/inédit.

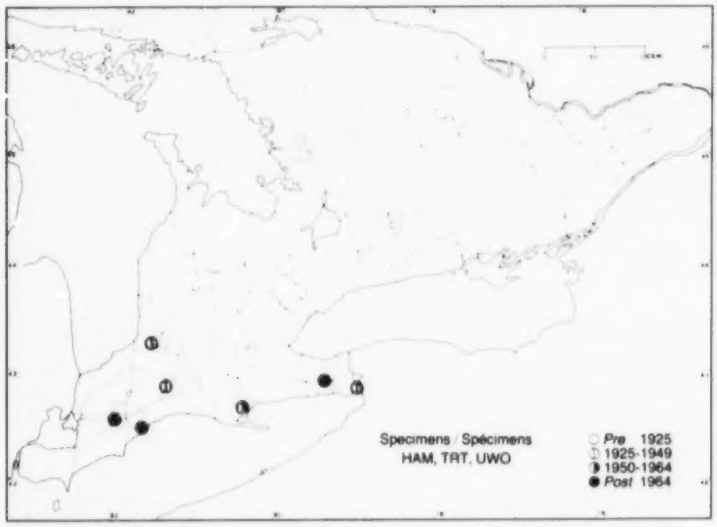
P.M. Catling, R.E. Whiting, D.J. White, & R.V. Maher

1982

ORCHIDACEAE

***Spiranthes ochroleuca* (Rydb. ex Britt.) Rydb.**
(*S. cernua* (L.) Richard var. *ochroleuca* (Rydb.) Ames)

Yellow ladies'-tresses
Spiranthe



HABITAT: Sandy meadows, prairies, and roadsides.

NOTES: Easily overlooked because of its similarity to the common and widespread *S. cernua*.

HABITAT: Prés sablonneux, prairies et le long des routes.

REMARQUES: Difficile à reconnaître en raison de sa similitude avec *S. cernua*, espèce commune et répandue.

REFERENCES/SOURCES

Brown, J.R., & P.M. Catling. 1980. The status and distribution of yellow ladies'-tresses orchid (*Spiranthes ochroleuca* (Rydb.) Rydb.) in Ontario. Ontario Field-Biologist (In press/sous presses.

Catling, P.M. 1980. Systematics of *Spiranthes* L.M.C. Richard in northeastern North America. Ph.D. thesis. University of Toronto. 550 pp. Unpublished/inédit.

Luer, C.A. 1975. The native orchids of the United States and Canada. The New York Botanical Garden, New York. 361 pp.

Sheviak, C.J. 1976. Biosystematic study of the *Spiranthes cernua* complex with emphasis on the prairies. Ph.D. thesis. Harvard University. Unpublished/inédit.

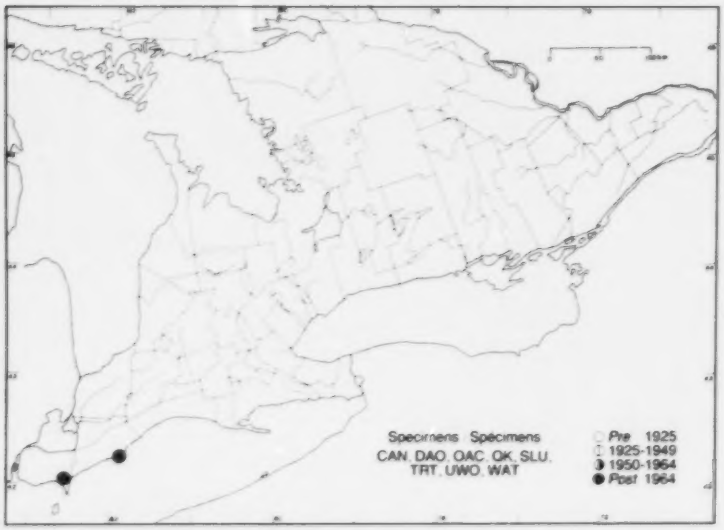
Sheviak, C.J., & P.M. Catling. 1980. The identity and status of *Spiranthes ochroleuca* (Rydberg) Rydberg. Rhodora 82:525-562.

P.M. Catling, R.E. Whiting, D.J. White, & R.V. Maher

1982

ORCHIDACEAE

***Triphora trianthophora* (Sw.) Rydb.** Nodding pogonia, three birds orchid



HABITAT: Rich deciduous woods.

STATUS: Rare in Canada. Possibly extirpated in Massachusetts; endangered in Wisconsin; threatened in Michigan, Ohio, and South Carolina; rare in Connecticut, Delaware, Maine, New Hampshire, New Jersey, Pennsylvania, Vermont, Virginia, and West Virginia.

NOTES: First discovered in Ontario in 1950.

HABITAT: Forêts de feuillus touffues.

SITUATION: Rare au Canada. Peut-être déracinée du Massachusetts; menacée d'extinction au Wisconsin; menacée au Michigan, en Ohio et en Caroline du Sud; rare au Connecticut, au Delaware, au Maine, au New Hampshire, au New Jersey, en Pennsylvanie, au Vermont, en Virginie et en Virginie de l'ouest.

REMARQUES: Découverte pour la première fois en Ontario en 1950.

REFERENCES/SOURCES

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D.J. White, R.V. Maher, P.M. Catling, & R.E. Whiting

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